Amendment No. 2
to
Contract No. MA 5600 NA170000195
for
Video & Audio System, Design-Build, Implementation and Installation Services
between
Audio Fidelity Communications Corporation dba Whitlock Group
and the
City of Austin

1.0 The City hereby exercises this extension option for the subject contract. This extension option will be effective September 20, 2019 to September 19, 2020. Two options will remain.

2.0 The total contract amount is increased by $142,173 by this extension period. The total contract authorization is recapped below:

Action	Action Amount	Total Contract Amount
Initial Term: 09/20/2017 – 09/19/2018	$1,320,870.00	$1,320,870.00
Amendment No. 1: Option 1 – Extension 09/20/2018 – 09/19/2019	$87,203.00	$1,408,073.00
Amendment No. 2: Option 2 – Extension 09/20/2019 – 09/19/2020	$142,173.00	$1,550,246.00

3.0 By signing this Amendment the Contractor certifies that the vendor and its principals are not currently suspended or debarred from doing business with the Federal Government, as indicated by the GSA List of Parties Excluded from Federal Procurement and Non-Procurement Programs, the State of Texas, or the City of Austin.

4.0 All other terms and conditions remain the same.

BY THE SIGNATURES affixed below, this amendment is hereby incorporated into and made a part of the above-referenced contract.

Sign/Date:

Printed Name: Elissa Fox
Authorized Representative

Audio Fidelity Communications Corporation
dba Whitlock Group
11100 Metric Boulevard, Suite 200 E
Austin, Texas 78758
foxe@whitlock.com
taylorc@whitlock.com
512-354-2827

Sign/Date:

~~Sai Xoomsai-Pursell~~ Jim Howard
Procurement ~~Supervisor~~ Manager

Austin Energy Purchasing Office
721 Barton Springs Road
Austin, Texas 78704

jb

Amendment No. 1
to
Contract No. 5600 NA170000195
for
Video and Audio System, Design-Build, Implementation and Installation Services
between
Audio Fidelity Communications Corporation dba. Whitlock Group
and the
City of Austin

1.0 The City hereby exercises this extension option for the subject contract. This extension option will be September 20, 2018, through September 19, 2019. Three (12 month) options will remain.

2.0 The total contract amount is increased by $87,203.00 by this extension period. The total contract authorization is recapped below:

Action	Action Amount	Total Contract Amount
Initial Term: 09/20/2017 – 09/19/2018	$1,320,870.00	$1,320,870.00
Amendment No. 1: Option 1 – Extension 09/20/2018 – 09/19/2019	$87,203.00	$1,408,073.00

3.0 MBE/WBE goals do not apply to this contract.

4.0 By signing this Amendment the Contractor certifies that the vendor and its principals are not currently suspended or debarred from doing business with the Federal Government, as indicated by the GSA List of Parties Excluded from Federal Procurement and Non-Procurement Programs, the State of Texas, or the City of Austin.

5.0 All other terms and conditions remain the same.

BY THE SIGNATURES affixed below, this amendment is hereby incorporated into and made a part of the above-referenced contract.

Sign/Date: July 5, 2018

Printed Name: CRAIG MORRIS TAYLOR
Authorized Representative

Audio Fidelity Communications Corporation
dba. Whitlock Group
11100 Metric Blvd, Suite 200 E
Austin, TX 78758

Sign/Date: 7/9/18

Printed Name: Bartley Tyler
Authorized Representative

Sign/Date:

Printed Name: JAMES T. HOWARD

City of Austin
Purchasing Office
124 W. 8th Street, Sts. 310
Austin, Texas 78701

CONTRACT BETWEEN THE CITY OF AUSTIN ("City")
AND
AUDIO FIDELITY COMMUNICATIONS CORPORATION dba. WHITLOCK GROUP ("Contractor")
for
Video and Audio System, Design-Build, Implementation and Installation Services
MA 5600 NA170000195

The City accepts the Contractor's Offer (as referenced in Section 1.1.3 below) for the above requirement and enters into the following Contract.

This Contract is between Audio Fidelity Communications Corporation dba. Whitlock Group having offices at Austin, TX 75758 and the City, a home-rule municipality incorporated by the State of Texas, and is effective as of the date executed by the City ("Effective Date").

Capitalized terms used but not defined herein have the meanings given them in Solicitation Number PAX0141.

1.1 **This Contract is composed of the following documents:**

1.1.1 This Contract

1.1.2 The City's Solicitation, Request for Proposal (RFP), PAX0141 including all documents incorporated by reference

1.1.3 Audio Fidelity Communications Corporation dba. Whitlock Group's Offer, dated March 29, 2017, including subsequent clarifications

1.2 **Order of Precedence.** Any inconsistency or conflict in the Contract documents shall be resolved by giving precedence in the following order:

1.2.1 This Contract

1.2.2 The City's Solicitation as referenced in Section 1.1.2, including all documents incorporated by reference

1.2.3 The Contractor's Offer as referenced in Section 1.1.3, including subsequent clarifications.

1.3 **Term of Contract.** The Contract will be in effect for an initial term of twelve (12) months and may be extended thereafter for up to four (4) twelve (12) month extension option(s), subject to the approval of the Contractor and the City Purchasing Officer or his designee. See the Term of Contract provision in Section 0400 for additional Contract requirements.

1.4 **Compensation.** The Contractor shall be paid a total Not-to-Exceed amount of $1,320,870 for the initial Contract term and with four 12-month extension options in an estimated amount of $87,203 for the first extension option, $142,173 for the second extension option, $164,513 for the third extension option, and $186,943 for the fourth extension option, for a total contract amount not to exceed $1,901,702. Payment shall be made upon successful completion of services or delivery of goods as outlined in each individual Delivery Order.

1.5 **Quantity of Work.** There is no guaranteed quantity of work for the period of the Contract and there are no minimum order quantities. Work will be on an as needed basis as specified by the City for each Delivery Order

1.1 **Clarifications and Additional Agreements.** The following are incorporated into the Contract.

1.1.1 Audio Fidelity Communications Corporation dba. Whitlock Group Contract Manager:

Elissa Fox
11100 Metric Blvd, Suite 200E
Austin, TX 78758
Office: 512-354-2827
Mobile: 512-773-3124
foxe@whitlock.com

1.1.2 Contractor will submit a monthly invoice to include all equipment and materials delivered and for a percentage of labor and other charges in accordance with the progress of the related work. The monthly invoice will be supported with a detailed schedule of values. Federal excise taxes, State taxes, or City sales taxes must not be included in the invoiced amount. The City will furnish a tax exemption certificate upon request

1.1.3 The City reserves the right to purchase related internet protocol television (IPTV) parts and services during the term of this contract. The Scope of Work and cost associated will be agreed upon by both parties prior to work implementation.

1.1.4 Appendix C - Technical Requirement. Line item 9, 10, and 11 have been deleted entirely.

1.1.5 Pricing offers represent all Cisco requirement including parts and annual support agreement.

This Contract (including any Exhibits) constitutes the entire agreement of the parties regarding the subject matter of this Contract and supersedes all prior and contemporaneous agreements and understandings, whether written or oral, relating to such subject matter. This Contract may be altered, amended, or modified only by a written instrument signed by the duly authorized representatives of both parties.

In witness whereof, the City has caused a duly authorized representative to execute this Contract on the date set forth below.

Audio Fidelity Communications Corporation dba. Whitlock Group

Alyson Horn
Printed Name of Authorized Person

Alyson Horn
Signature

Regional Director
Title:

9-20-17
Date:

CITY OF AUSTIN

Sai Xaansai Porcell
Printed Name of Authorized Person

Signature

Procurement Specialist IV
Title:

9/20/17
Date:

CITY OF AUSTIN, TEXAS
Purchasing Office
REQUEST FOR PROPOSAL (RFP)
OFFER SHEET

SOLICITATION NO: PAX0141

DATE ISSUED: 02/27/2017

REQUISITION NO.: 16071100567

COMMODITY CODE: 28796, 84084, 91509, 92031, 92040

FOR CONTRACTUAL AND TECHNICAL ISSUES CONTACT THE FOLLOWING AUTHORIZED CONTACT PERSON:
Sai Xoomsai Purcell
Senior Buyer Specialist
Phone: (512) 974-3058
E-Mail: sai.xoomsai@austintexas.gov

FOR CONTRACTUAL AND TECHNICAL ISSUES CONTACT THE FOLLOWING AUTHORIZED CONTACT PERSON:
Jane Neal
Buyer II
Phone: (512) 974-3398
E-Mail: jane.neal@austintexas.gov

FOR SMALL AND MINORITY RESOURCES ISSUES CONTACT THE FOLLOWING AUTHORIZED CONTACT PERSON:
Jessica Oberembt
Business Development Counselor
Phone: (512) 974-7699
E-Mail: Jessica.Oberembt@austintexas.gov

COMMODITY/SERVICE DESCRIPTION: Video and Audio System, Design-Build, Implementation and Installation Services

PRE-PROPOSAL CONFERENCE TIME AND DATE: 03/07/2017, 1:00 pm, local time. (Please arrive 30 minutes early in order to clear screening. Site-visit will immediately follow the pre-proposal meeting)
CONFERENCE CALL NO. (512) 974-9300
Participant Code: 521387
LOCATION: 5010 Old Manor Road, Austin, TX 78723. Room 234.

PROPOSAL and COMPLIANCE PLAN DUE PRIOR TO: 03/23/17, 2:00 pm, local time

PROPOSAL OPENING TIME AND DATE: 03/23/17, 2:15 pm, local time
LOCATION: MUNICIPAL BUILDING, 124 W 8th STREET
RM 308, AUSTIN, TEXAS 78701

LIVE SOLICITATION CLOSING ONLINE: For RFP's, only the names of respondents will be read aloud

For information on how to attend the Solicitation Closing online, please select this link:
http://www.austintexas.gov/department/bid-opening-webinars

When submitting a sealed Offer and/or Compliance Plan, use the proper address for the type of service desired, as shown below:

Address for US Mail (Only)	Address for FedEx, UPS, Hand Delivery or Courier Service
City of Austin	City of Austin, Municipal Building
Purchasing Office-Response Enclosed for Solicitation # PAX0141	Purchasing Office-Response Enclosed for Solicitation # PAX0141
P.O. Box 1088	124 W 8th Street, Rm 308
Austin, Texas 78767-8845	Austin, Texas 78701
	Reception Phone: (512) 974-2500

NOTE: Offers must be received and time stamped in the Purchasing Office prior to the Due Date and Time. It is the responsibility of the Offeror to ensure that their Offer arrives at the receptionist's desk in the Purchasing Office prior to the time and date indicated. Arrival at the City's mailroom, mail terminal, or post office box will not constitute the Offer arriving on time. See Section 0200 for additional solicitation instructions.

All Offers (including Compliance Plans) that are not submitted in a sealed envelope or container will not be considered.

*****SIGNATURE FOR SUBMITTAL REQUIRED ON PAGE 3 OF THIS DOCUMENT*****

This solicitation is comprised of the following required sections. Please ensure to carefully read each section including those incorporated by reference. By signing this document, you are agreeing to all the items contained herein and will be bound to all terms.

SECTION NO.	TITLE	PAGES
0100	STANDARD PURCHASE DEFINITIONS	*
0200	STANDARD SOLICITATION INSTRUCTIONS	*
0300	STANDARD PURCHASE TERMS AND CONDITIONS	*
0400	SUPPLEMENTAL PURCHASE PROVISIONS	6
0500	SCOPE OF WORK	21
0600	PROPOSAL PREPARATION INSTRUCTIONS & EVALUATION FACTORS	*
0605	LOCAL BUSINESS PRESENCE IDENTIFICATION FORM – Complete and return	2
0800	NON-DISCRIMINATION AND NON-RETALIATION CERTIFICATION	2
0805	NON-SUSPENSION OR DEBARMENT CERTIFICATION	*
0810	NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING CERTIFICATION	*
0815	LIVING WAGES CONTRACTOR CERTIFICATION-Complete and return	1
0835	NONRESIDENT BIDDER PROVISIONS – Complete and return	1
0900	MBE/WBE PROCUREMENT PROGRAM PACKAGE – Must be completed and returned	29
Attachment A	Proposal Exceptions Form	3
Appendix A	Price Proposal Form (excel sheet)	7
Appendix B	Video Inputs and Outputs Requirements	1
Appendix C	Technical and General Requirements (excel sheet)	5

*** Documents are hereby incorporated into this Solicitation by reference, with the same force and effect as if they were incorporated in full text. The full text versions of the * Sections are available on the Internet at the following online address:**

http://www.austintexas.gov/financeonline/vendor_connection/index.cfm#STANDARDBIDDOCUMENTS

If you do not have access to the Internet, you may obtain a copy of these Sections from the City of Austin Purchasing Office located in the Municipal Building, 124 West 8th Street, Room #308 Austin, Texas 78701; phone (512) 974-2500. Please have the Solicitation number available so that the staff can select the proper documents. These documents can be mailed, expressed mailed, or faxed to you.

INTERESTED PARTIES DISCLOSURE

In addition, Section 2252.908 of the Texas Government Code requires the successful offeror to complete a Form 1295 "Certificate of Interested Parties" that is signed and notarized for a contract award requiring council authorization. The "Certificate of Interested Parties" form must be completed on the Texas Ethics Commission website, printed, signed and submitted to the City by the authorized agent of the Business Entity with acknowledgment that disclosure is made under oath and under penalty of perjury prior to final contract execution.

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

The undersigned, by his/her signature, represents that he/she is submitting a binding offer and is authorized to bind the respondent to fully comply with the solicitation document contained herein. The Respondent, by submitting and signing below, acknowledges that he/she has received and read the entire document packet sections defined above including all documents incorporated by reference, and agrees to be bound by the terms therein.

Company Name: Audio Fidelity Communications Corporation, doing business as Whitlock

Company Address: 11100 Metric Boulevard, Suite 200E

City, State, Zip: Austin, Texas 75758

Federal Tax ID No. [redacted]

Printed Name of Officer or Authorized Representative: Craig Orris Taylor

Title: Senior Account Executive

Signature of Officer or Authorized Representative:

Date: March 29, 2017

Email Address: taylorc@whitlock.com

Phone Number: 214-505-4136

*** Proposal response must be submitted with this Offer sheet to be considered for award**

CITY OF AUSTIN
PURCHASING OFFICE
PURCHASING EXCEPTIONS
ATTACHMENT A

Solicitation Number: RFP PAX0141

The offeror shall clearly indicate each exception taken, provide alternative language, and justify the alternative language. The offeror that is awarded the contract will be required to sign the contract with the provisions accepted; any exceptions may be negotiated or may result in the City deeming the offer non-responsive. Failure to accept or provide the exception information below may result in the City deeming the offer non-responsive.

1. **0300 STANDARD PURCHASE TERMS & CONDITIONS**

☒ Accepted as written. ☐ Not accepted as written. See below:

Indicate:
Page Number **Section Number** **Section Description**

Alternate Language:

Justification:

NOTE: Copies of this form may be utilized if additional pages are needed.

CITY OF AUSTIN
PURCHASING OFFICE
STANDARD PURCHASE TERMS AND CONDITIONS

By submitting an Offer in response to the Solicitation, the Contractor agrees that the Contract shall be governed by the following terms and conditions. Unless otherwise specified in the Contract, Sections 3, 4, 5, 6, 7, 8, 20, 21, and 36 shall apply only to a Solicitation to purchase Goods, and Sections 9, 10, 11 and 22 shall apply only to a Solicitation to purchase Services to be performed principally at the City's premises or on public rights-of-way.

1. **CONTRACTOR'S OBLIGATIONS**. The Contractor shall fully and timely provide all Deliverables described in the Solicitation and in the Contractor's Offer in strict accordance with the terms, covenants, and conditions of the Contract and all applicable Federal, State, and local laws, rules, and regulations.

2. **EFFECTIVE DATE/TERM**. Unless otherwise specified in the Solicitation, this Contract shall be effective as of the date the contract is signed by the City, and shall continue in effect until all obligations are performed in accordance with the Contract.

3. **CONTRACTOR TO PACKAGE DELIVERABLES**: The Contractor will package Deliverables in accordance with good commercial practice and shall include a packing list showing the description of each item, the quantity and unit price Unless otherwise provided in the Specifications or Supplemental Terms and Conditions, each shipping container shall be clearly and permanently marked as follows: (a) The Contractor's name and address, (b) the City's name, address and purchase order or purchase release number and the price agreement number if applicable, (c) Container number and total number of containers, e.g. box 1 of 4 boxes, and (d) the number of the container bearing the packing list. The Contractor shall bear cost of packaging. Deliverables shall be suitably packed to secure lowest transportation costs and to conform with requirements of common carriers and any applicable specifications. The City's count or weight shall be final and conclusive on shipments not accompanied by packing lists.

4. **SHIPMENT UNDER RESERVATION PROHIBITED**: The Contractor is not authorized to ship the Deliverables under reservation and no tender of a bill of lading will operate as a tender of Deliverables.

5. **TITLE & RISK OF LOSS**: Title to and risk of loss of the Deliverables shall pass to the City only when the City actually receives and accepts the Deliverables.

6. **DELIVERY TERMS AND TRANSPORTATION CHARGES**: Deliverables shall be shipped F.O.B. point of delivery unless otherwise specified in the Supplemental Terms and Conditions. Unless otherwise stated in the Offer, the Contractor's price shall be deemed to include all delivery and transportation charges. The City shall have the right to designate what method of transportation shall be used to ship the Deliverables. The place of delivery shall be that set forth in the block of the purchase order or purchase release entitled "Receiving Agency".

7. **RIGHT OF INSPECTION AND REJECTION**: The City expressly reserves all rights under law, including, but not limited to the Uniform Commercial Code, to inspect the Deliverables at delivery before accepting them, and to reject defective or non-conforming Deliverables. If the City has the right to inspect the Contractor's, or the Contractor's Subcontractor's, facilities, or the Deliverables at the Contractor's, or the Contractor's Subcontractor's, premises, the Contractor shall furnish, or cause to be furnished, without additional charge, all reasonable facilities and assistance to the City to facilitate such inspection.

8. **NO REPLACEMENT OF DEFECTIVE TENDER**: Every tender or delivery of Deliverables must fully comply with all provisions of the Contract as to time of delivery, quality, and quantity. Any non-complying tender shall constitute a breach and the Contractor shall not have the right to substitute a conforming tender; provided, where the time for performance has not yet expired, the Contractor may notify the City of the intention to cure and may then make a conforming tender within the time allotted in the contract.

9. **PLACE AND CONDITION OF WORK**: The City shall provide the Contractor access to the sites where the Contractor is to perform the services as required in order for the Contractor to perform the services in a timely and efficient manner, in accordance with and subject to the applicable security laws, rules, and regulations. The Contractor acknowledges that it has satisfied itself as to the nature of the City's service requirements and specifications, the location and essential characteristics of the work sites, the quality and quantity of materials, equipment, labor and facilities necessary to perform the services, and any other condition or state of fact which could in any way affect performance of the Contractor's obligations under the contract. The Contractor hereby releases and holds the City

harmless from and against any liability or claim for damages of any kind or nature if the actual site or service conditions differ from expected conditions.

10. **WORKFORCE**

A. The Contractor shall employ only orderly and competent workers, skilled in the performance of the services which they will perform under the Contract.

B. The Contractor, its employees, subcontractors, and subcontractor's employees may not while engaged in participating or responding to a solicitation or while in the course and scope of delivering goods or services under a City of Austin contract or on the City's property .

i. use or possess a firearm, including a concealed handgun that is licensed under state law, except as required by the terms of the contract; or
ii. use or possess alcoholic or other intoxicating beverages, illegal drugs or controlled substances, nor may such workers be intoxicated, or under the influence of alcohol or drugs, on the job.

C. If the City or the City's representative notifies the Contractor that any worker is incompetent, disorderly or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms, or has possessed or was under the influence of alcohol or drugs on the job, the Contractor shall immediately remove such worker from Contract services, and may not employ such worker again on Contract services without the City's prior written consent.

11. **COMPLIANCE WITH HEALTH, SAFETY, AND ENVIRONMENTAL REGULATIONS**: The Contractor, its Subcontractors, and their respective employees, shall comply fully with all applicable federal, state, and local health, safety, and environmental laws, ordinances, rules and regulations in the performance of the services, including but not limited to those promulgated by the City and by the Occupational Safety and Health Administration (OSHA). In case of conflict, the most stringent safety requirement shall govern. The Contractor shall indemnify and hold the City harmless from and against all claims, demands, suits, actions, judgments, fines, penalties and liability of every kind arising from the breach of the Contractor's obligations under this paragraph.

12. **INVOICES**:

A. The Contractor shall submit separate invoices in duplicate on each purchase order or purchase release after each delivery. If partial shipments or deliveries are authorized by the City, a separate invoice must be sent for each shipment or delivery made.

B. **Proper Invoices must include a unique invoice number, the purchase order or delivery order number and the master agreement number if applicable, the Department's Name, and the name of the point of contact for the Department**. Invoices shall be itemized and transportation charges, if any, shall be listed separately. A copy of the bill of lading and the freight waybill, when applicable, shall be attached to the invoice. The Contractor's name and, if applicable, the tax identification number on the invoice must exactly match the information in the Vendor's registration with the City. Unless otherwise instructed in writing, the City may rely on the remittance address specified on the Contractor's invoice.

C. Invoices for labor shall include a copy of all time-sheets with trade labor rate and Deliverables order number clearly identified. Invoices shall also include a tabulation of work-hours at the appropriate rates and grouped by work order number. Time billed for labor shall be limited to hours actually worked at the work site.

D. Unless otherwise expressly authorized in the Contract, the Contractor shall pass through all Subcontract and other authorized expenses at actual cost without markup.

E. Federal excise taxes, State taxes, or City sales taxes must not be included in the invoiced amount. The City will furnish a tax exemption certificate upon request.

13. **PAYMENT**:

A. All proper invoices received by the City will be paid within thirty (30) calendar days of the City's receipt of the Deliverables or of the invoice, whichever is later.

B. **If payment is not timely made, (per paragraph A), interest shall accrue on the unpaid balance at the lesser of the rate specified in Texas Government Code Section 2251.025 or the maximum lawful rate; except, if payment is not timely made for a reason for which the City may withhold payment hereunder, interest shall not accrue until ten (10) calendar days after the grounds for withholding payment have been resolved.**

C. If partial shipments or deliveries are authorized by the City, the Contractor will be paid for the partial shipment or delivery, as stated above, provided that the invoice matches the shipment or delivery.

D. The City may withhold or set off the entire payment or part of any payment otherwise due the Contractor to such extent as may be necessary on account of:

i. delivery of defective or non-conforming Deliverables by the Contractor;
ii. third party claims, which are not covered by the insurance which the Contractor is required to provide, are filed or reasonable evidence indicating probable filing of such claims;
iii. failure of the Contractor to pay Subcontractors, or for labor, materials or equipment;
iv. damage to the property of the City or the City's agents, employees or contractors, which is not covered by insurance required to be provided by the Contractor;
v. reasonable evidence that the Contractor's obligations will not be completed within the time specified in the Contract, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
vi. failure of the Contractor to submit proper invoices with all required attachments and supporting documentation; or
vii. failure of the Contractor to comply with any material provision of the Contract Documents.

E. Notice is hereby given of Article VIII, Section 1 of the Austin City Charter which prohibits the payment of any money to any person, firm or corporation who is in arrears to the City for taxes, and of §2-8-3 of the Austin City Code concerning the right of the City to offset indebtedness owed the City.

F. Payment will be made by check unless the parties mutually agree to payment by credit card or electronic transfer of funds. The Contractor agrees that there shall be no additional charges, surcharges, or penalties to the City for payments made by credit card or electronic funds transfer.

G. The awarding or continuation of this contract is dependent upon the availability of funding. The City's payment obligations are payable only and solely from funds Appropriated and available for this contract. The absence of Appropriated or other lawfully available funds shall render the Contract null and void to the extent funds are not Appropriated or available and any Deliverables delivered but unpaid shall be returned to the Contractor. The City shall provide the Contractor written notice of the failure of the City to make an adequate Appropriation for any fiscal year to pay the amounts due under the Contract, or the reduction of any Appropriation to an amount insufficient to permit the City to pay its obligations under the Contract. In the event of non or inadequate appropriation of funds, there will be no penalty nor removal fees charged to the City.

14. **TRAVEL EXPENSES**: All travel, lodging and per diem expenses in connection with the Contract for which reimbursement may be claimed by the Contractor under the terms of the Solicitation will be reviewed against the City's Travel Policy as published and maintained by the City's Controller's Office and the Current United States General Services Administration Domestic Per Diem Rates (the "Rates") as published and maintained on the Internet at:

http://www.gsa.gov/portal/category/21287

No amounts in excess of the Travel Policy or Rates shall be paid. All invoices must be accompanied by copies of detailed itemized receipts (e.g. hotel bills, airline tickets). No reimbursement will be made for expenses not actually incurred. Airline fares in excess of coach or economy will not be reimbursed. Mileage charges may not exceed the amount permitted as a deduction in any year under the Internal Revenue Code or Regulations.

15. **FINAL PAYMENT AND CLOSE-OUT**:

A. If an MBE/WBE Program Compliance Plan is required by the Solicitation, and the Contractor has identified Subcontractors, the Contractor is required to submit a Contract Close-Out MBE/WBE Compliance Report to the Project manager or Contract manager no later than the 15th calendar day after completion of all work under the contract. Final payment, retainage, or both may be withheld if the Contractor is not in compliance with the requirements of the Compliance Plan as accepted by the City.

B. The making and acceptance of final payment will constitute:

i. a waiver of all claims by the City against the Contractor, except claims (1) which have been previously asserted in writing and not yet settled, (2) arising from defective work appearing after final inspection, (3) arising from failure of the Contractor to comply with the Contract or the terms of any warranty specified herein, (4) arising from the Contractor's continuing obligations under the Contract, including but not limited to indemnity and warranty obligations, or (5) arising under the City's right to audit; and

ii. a waiver of all claims by the Contractor against the City other than those previously asserted in writing and not yet settled.

16. **SPECIAL TOOLS & TEST EQUIPMENT**: If the price stated on the Offer includes the cost of any special tooling or special test equipment fabricated or required by the Contractor for the purpose of filling this order, such special tooling equipment and any process sheets related thereto shall become the property of the City and shall be identified by the Contractor as such.

17. **AUDITS and RECORDS**:

A. The Contractor agrees that the representatives of the Office of the City Auditor or other authorized representatives of the City shall have access to, and the right to audit, examine, or reproduce, any and all records of the Contractor related to the performance under this Contract. The Contractor shall retain all such records for a period of three (3) years after final payment on this Contract or until all audit and litigation matters that the City has brought to the attention of the Contractor are resolved, whichever is longer. The Contractor agrees to refund to the City any overpayments disclosed by any such audit.

B. Records Retention:

i. Contractor is subject to City Code chapter 2-11 (Records Management), and as it may subsequently be amended. For purposes of this subsection, a Record means all books, accounts, reports, files, and other data recorded or created by a Contractor in fulfillment of the Contract whether in digital or physical format, except a record specifically relating to the Contractor's internal administration.

ii. All Records are the property of the City. The Contractor may not dispose of or destroy a Record without City authorization and shall deliver the Records, in all requested formats and media, along with all finding aids and metadata, to the City at no cost when requested by the City

iii. The Contractor shall retain all Records for a period of three (3) years after final payment on this Contract or until all audit and litigation matters that the City has brought to the attention of the Contractor are resolved, whichever is longer.

C. The Contractor shall include sections A and B above in all subcontractor agreements entered into in connection with this Contract.

18. **SUBCONTRACTORS**:

A. If the Contractor identified Subcontractors in an MBE/WBE Program Compliance Plan or a No Goals Utilization Plan the Contractor shall comply with the provisions of Chapters 2-9A, 2-9B, 2-9C, and 2-9D, as applicable, of the Austin City Code and the terms of the Compliance Plan or Utilization Plan as approved by the City (the "Plan"). The Contractor shall not initially employ any Subcontractor except as provided in the Contractor's Plan. The Contractor shall not substitute any Subcontractor identified in the Plan, unless the substitute has been accepted by the City in writing in accordance with the provisions of Chapters 2-9A, 2-9B, 2-9C and 2-9D, as applicable. No acceptance by the City of any Subcontractor shall constitute a waiver of any rights or remedies of the City with respect to defective Deliverables provided by a Subcontractor. If a Plan has been approved, the Contractor is additionally required to submit a monthly Subcontract Awards and Expenditures Report to the Contract Manager and the Purchasing Office Contract Compliance Manager no later than the tenth calendar day of each month.

B. Work performed for the Contractor by a Subcontractor shall be pursuant to a written contract between the Contractor and Subcontractor. The terms of the subcontract may not conflict with the terms of the Contract, and shall contain provisions that:

i. require that all Deliverables to be provided by the Subcontractor be provided in strict accordance with the provisions, specifications and terms of the Contract;
ii. prohibit the Subcontractor from further subcontracting any portion of the Contract without the prior written consent of the City and the Contractor. The City may require, as a condition to such further subcontracting, that the Subcontractor post a payment bond in form, substance and amount acceptable to the City;
iii. require Subcontractors to submit all invoices and applications for payments, including any claims for additional payments, damages or otherwise, to the Contractor in sufficient time to enable the Contractor to include same with its invoice or application for payment to the City in accordance with the terms of the Contract;
iv. require that all Subcontractors obtain and maintain, throughout the term of their contract, insurance in the type and amounts specified for the Contractor, with the City being a named insured as its interest shall appear; and
v. require that the Subcontractor indemnify and hold the City harmless to the same extent as the Contractor is required to indemnify the City.

C. The Contractor shall be fully responsible to the City for all acts and omissions of the Subcontractors just as the Contractor is responsible for the Contractor's own acts and omissions. Nothing in the Contract shall create for the benefit of any such Subcontractor any contractual relationship between the City and any such Subcontractor, nor shall it create any obligation on the part of the City to pay or to see to the payment of any moneys due any such Subcontractor except as may otherwise be required by law.

D. The Contractor shall pay each Subcontractor its appropriate share of payments made to the Contractor not later than ten (10) calendar days after receipt of payment from the City.

19. **WARRANTY-PRICE**:

A. The Contractor warrants the prices quoted in the Offer are no higher than the Contractor's current prices on orders by others for like Deliverables under similar terms of purchase.

B. The Contractor certifies that the prices in the Offer have been arrived at independently without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such fees with any other firm or with any competitor.

C. In addition to any other remedy available, the City may deduct from any amounts owed to the Contractor, or otherwise recover, any amounts paid for items in excess of the Contractor's current prices on orders by others for like Deliverables under similar terms of purchase.

20. **WARRANTY – TITLE**: The Contractor warrants that it has good and indefeasible title to all Deliverables furnished under the Contract, and that the Deliverables are free and clear of all liens, claims, security interests and encumbrances. The Contractor shall indemnify and hold the City harmless from and against all adverse title claims to the Deliverables.

21. **WARRANTY – DELIVERABLES**: The Contractor warrants and represents that all Deliverables sold the City under the Contract shall be free from defects in design, workmanship or manufacture, and conform in all material respects to the specifications, drawings, and descriptions in the Solicitation, to any samples furnished by the Contractor, to the terms, covenants and conditions of the Contract, and to all applicable State, Federal or local laws, rules, and regulations, and industry codes and standards. Unless otherwise stated in the Solicitation, the Deliverables shall be new or recycled merchandise, and not used or reconditioned.

    A. Recycled Deliverables shall be clearly identified as such.

    B. The Contractor may not limit, exclude or disclaim the foregoing warranty or any warranty implied by law; and any attempt to do so shall be without force or effect.

    C. Unless otherwise specified in the Contract, the warranty period shall be at least one year from the date of acceptance of the Deliverables or from the date of acceptance of any replacement Deliverables. If during the warranty period, one or more of the above warranties are breached, the Contractor shall promptly upon receipt of demand either repair the non-conforming Deliverables, or replace the non-conforming Deliverables with fully conforming Deliverables, at the City's option and at no additional cost to the City. All costs incidental to such repair or replacement, including but not limited to, any packaging and shipping costs, shall be borne exclusively by the Contractor. The City shall endeavor to give the Contractor written notice of the breach of warranty within thirty (30) calendar days of discovery of the breach of warranty, but failure to give timely notice shall not impair the City's rights under this section.

    D. If the Contractor is unable or unwilling to repair or replace defective or non-conforming Deliverables as required by the City, then in addition to any other available remedy, the City may reduce the quantity of Deliverables it may be required to purchase under the Contract from the Contractor, and purchase conforming Deliverables from other sources. In such event, the Contractor shall pay to the City upon demand the increased cost, if any, incurred by the City to procure such Deliverables from another source.

    E. If the Contractor is not the manufacturer, and the Deliverables are covered by a separate manufacturer's warranty, the Contractor shall transfer and assign such manufacturer's warranty to the City. If for any reason the manufacturer's warranty cannot be fully transferred to the City, the Contractor shall assist and cooperate with the City to the fullest extent to enforce such manufacturer's warranty for the benefit of the City.

22. **WARRANTY – SERVICES**: The Contractor warrants and represents that all services to be provided the City under the Contract will be fully and timely performed in a good and workmanlike manner in accordance with generally accepted industry standards and practices, the terms, conditions, and covenants of the Contract, and all applicable Federal, State and local laws, rules or regulations.

    A. The Contractor may not limit, exclude or disclaim the foregoing warranty or any warranty implied by law, and any attempt to do so shall be without force or effect.

    B. Unless otherwise specified in the Contract, the warranty period shall be at least one year from the Acceptance Date. If during the warranty period, one or more of the above warranties are breached, the Contractor shall promptly upon receipt of demand perform the services again in accordance with above standard at no additional cost to the City. All costs incidental to such additional performance shall be borne by the Contractor. The City shall endeavor to give the Contractor written notice of the breach of warranty within thirty (30) calendar days of discovery of the breach warranty, but failure to give timely notice shall not impair the City's rights under this section.

    C. If the Contractor is unable or unwilling to perform its services in accordance with the above standard as required by the City, then in addition to any other available remedy, the City may reduce the amount of services it may be

required to purchase under the Contract from the Contractor, and purchase conforming services from other sources. In such event, the Contractor shall pay to the City upon demand the increased cost, if any, incurred by the City to procure such services from another source.

23. **ACCEPTANCE OF INCOMPLETE OR NON-CONFORMING DELIVERABLES**: If, instead of requiring immediate correction or removal and replacement of defective or non-conforming Deliverables, the City prefers to accept it, the City may do so. The Contractor shall pay all claims, costs, losses and damages attributable to the City's evaluation of and determination to accept such defective or non-conforming Deliverables. If any such acceptance occurs prior to final payment, the City may deduct such amounts as are necessary to compensate the City for the diminished value of the defective or non-conforming Deliverables. If the acceptance occurs after final payment, such amount will be refunded to the City by the Contractor.

24. **RIGHT TO ASSURANCE**: Whenever one party to the Contract in good faith has reason to question the other party's intent to perform, demand may be made to the other party for written assurance of the intent to perform. In the event that no assurance is given within the time specified after demand is made, the demanding party may treat this failure as an anticipatory repudiation of the Contract.

25. **STOP WORK NOTICE**: The City may issue an immediate Stop Work Notice in the event the Contractor is observed performing in a manner that is in violation of Federal, State, or local guidelines, or in a manner that is determined by the City to be unsafe to either life or property. Upon notification, the Contractor will cease all work until notified by the City that the violation or unsafe condition has been corrected. The Contractor shall be liable for all costs incurred by the City as a result of the issuance of such Stop Work Notice.

26. **DEFAULT**: The Contractor shall be in default under the Contract if the Contractor (a) fails to fully, timely and faithfully perform any of its material obligations under the Contract, (b) fails to provide adequate assurance of performance under Paragraph 24, (c) becomes insolvent or seeks relief under the bankruptcy laws of the United States or (d) makes a material misrepresentation in Contractor's Offer, or in any report or deliverable required to be submitted by the Contractor to the City.

27. **TERMINATION FOR CAUSE:**. In the event of a default by the Contractor, the City shall have the right to terminate the Contract for cause, by written notice effective ten (10) calendar days, unless otherwise specified, after the date of such notice, unless the Contractor, within such ten (10) day period, cures such default, or provides evidence sufficient to prove to the City's reasonable satisfaction that such default does not, in fact, exist. The City may place Contractor on probation for a specified period of time within which the Contractor must correct any non-compliance issues. Probation shall not normally be for a period of more than nine (9) months, however, it may be for a longer period, not to exceed one (1) year depending on the circumstances. If the City determines the Contractor has failed to perform satisfactorily during the probation period, the City may proceed with suspension. In the event of a default by the Contractor, the City may suspend or debar the Contractor in accordance with the "City of Austin Purchasing Office Probation, Suspension and Debarment Rules for Vendors" and remove the Contractor from the City's vendor list for up to five (5) years and any Offer submitted by the Contractor may be disqualified for up to five (5) years. In addition to any other remedy available under law or in equity, the City shall be entitled to recover all actual damages, costs, losses and expenses, incurred by the City as a result of the Contractor's default, including, without limitation, cost of cover, reasonable attorneys' fees, court costs, and prejudgment and post-judgment interest at the maximum lawful rate. All rights and remedies under the Contract are cumulative and are not exclusive of any other right or remedy provided by law.

28. **TERMINATION WITHOUT CAUSE**: The City shall have the right to terminate the Contract, in whole or in part, without cause any time upon thirty (30) calendar days' prior written notice. Upon receipt of a notice of termination, the Contractor shall promptly cease all further work pursuant to the Contract, with such exceptions, if any, specified in the notice of termination. The City shall pay the Contractor, to the extent of funds Appropriated or otherwise legally available for such purposes, for all goods delivered and services performed and obligations incurred prior to the date of termination in accordance with the terms hereof.

29. **FRAUD**: Fraudulent statements by the Contractor on any Offer or in any report or deliverable required to be submitted by the Contractor to the City shall be grounds for the termination of the Contract for cause by the City and may result in legal action.

30. **DELAYS**:

A. The City may delay scheduled delivery or other due dates by written notice to the Contractor if the City deems it is in its best interest. If such delay causes an increase in the cost of the work under the Contract, the City and the Contractor shall negotiate an equitable adjustment for costs incurred by the Contractor in the Contract price and execute an amendment to the Contract. The Contractor must assert its right to an adjustment within thirty (30) calendar days from the date of receipt of the notice of delay. Failure to agree on any adjusted price shall be handled under the Dispute Resolution process specified in paragraph 48. However, nothing in this provision shall excuse the Contractor from delaying the delivery as notified.

B. Neither party shall be liable for any default or delay in the performance of its obligations under this Contract if, while and to the extent such default or delay is caused by acts of God, fire, riots, civil commotion, labor disruptions, sabotage, sovereign conduct, or any other cause beyond the reasonable control of such Party. In the event of default or delay in contract performance due to any of the foregoing causes, then the time for completion of the services will be extended; provided, however, in such an event, a conference will be held within three (3) business days to establish a mutually agreeable period of time reasonably necessary to overcome the effect of such failure to perform.

31. **INDEMNITY**:

A. Definitions:

i. "Indemnified Claims" shall include any and all claims, demands, suits, causes of action, judgments and liability of every character, type or description, including all reasonable costs and expenses of litigation, mediation or other alternate dispute resolution mechanism, including attorney and other professional fees for:
   (1) damage to or loss of the property of any person (including, but not limited to the City, the Contractor, their respective agents, officers, employees and subcontractors; the officers, agents, and employees of such subcontractors; and third parties); and/or
   (2) death, bodily injury, illness, disease, worker's compensation, loss of services, or loss of income or wages to any person (including but not limited to the agents, officers and employees of the City, the Contractor, the Contractor's subcontractors, and third parties),

ii. "Fault" shall include the sale of defective or non-conforming Deliverables, negligence, willful misconduct, or a breach of any legally imposed strict liability standard.

B. **THE CONTRACTOR SHALL DEFEND (AT THE OPTION OF THE CITY), INDEMNIFY, AND HOLD THE CITY, ITS SUCCESSORS, ASSIGNS, OFFICERS, EMPLOYEES AND ELECTED OFFICIALS HARMLESS FROM AND AGAINST ALL INDEMNIFIED CLAIMS DIRECTLY ARISING OUT OF, INCIDENT TO, CONCERNING OR RESULTING FROM THE FAULT OF THE CONTRACTOR, OR THE CONTRACTOR'S AGENTS, EMPLOYEES OR SUBCONTRACTORS, IN THE PERFORMANCE OF THE CONTRACTOR'S OBLIGATIONS UNDER THE CONTRACT. NOTHING HEREIN SHALL BE DEEMED TO LIMIT THE RIGHTS OF THE CITY OR THE CONTRACTOR (INCLUDING, BUT NOT LIMITED TO, THE RIGHT TO SEEK CONTRIBUTION) AGAINST ANY THIRD PARTY WHO MAY BE LIABLE FOR AN INDEMNIFIED CLAIM.**

32. **INSURANCE**: (reference Section 0400 for specific coverage requirements). The following insurance requirement applies. (Revised March 2013).

A. General Requirements.

i. The Contractor shall at a minimum carry insurance in the types and amounts indicated in Section 0400, Supplemental Purchase Provisions, for the duration of the Contract, including extension options and hold over periods, and during any warranty period.

ii. The Contractor shall provide Certificates of Insurance with the coverages and endorsements required in Section 0400, Supplemental Purchase Provisions, to the City as verification of coverage prior to contract execution and within fourteen (14) calendar days after written request from the

City. Failure to provide the required Certificate of Insurance may subject the Offer to disqualification from consideration for award. The Contractor must also forward a Certificate of Insurance to the City whenever a previously identified policy period has expired, or an extension option or hold over period is exercised, as verification of continuing coverage.

iii. The Contractor shall not commence work until the required insurance is obtained and until such insurance has been reviewed by the City. Approval of insurance by the City shall not relieve or decrease the liability of the Contractor hereunder and shall not be construed to be a limitation of liability on the part of the Contractor.

iv. The City may request that the Contractor submit certificates of insurance to the City for all subcontractors prior to the subcontractors commencing work on the project.

v. The Contractor's and all subcontractors' insurance coverage shall be written by companies licensed to do business in the State of Texas at the time the policies are issued and shall be written by companies with A.M. Best ratings of B+VII or better.

vi. The "other" insurance clause shall not apply to the City where the City is an additional insured shown on any policy. It is intended that policies required in the Contract, covering both the City and the Contractor, shall be considered primary coverage as applicable.

vii. If insurance policies are not written for amounts specified in Section 0400, Supplemental Purchase Provisions, the Contractor shall carry Umbrella or Excess Liability Insurance for any differences in amounts specified. If Excess Liability Insurance is provided, it shall follow the form of the primary coverage.

viii. The City shall be entitled, upon request, at an agreed upon location, and without expense, to review certified copies of policies and endorsements thereto and may make any reasonable requests for deletion or revision or modification of particular policy terms, conditions, limitations, or exclusions except where policy provisions are established by law or regulations binding upon either of the parties hereto or the underwriter on any such policies.

ix. The City reserves the right to review the insurance requirements set forth during the effective period of the Contract and to make reasonable adjustments to insurance coverage, limits, and exclusions when deemed necessary and prudent by the City based upon changes in statutory law, court decisions, the claims history of the industry or financial condition of the insurance company as well as the Contractor.

x. The Contractor shall not cause any insurance to be canceled nor permit any insurance to lapse during the term of the Contract or as required in the Contract.

xi. The Contractor shall be responsible for premiums, deductibles and self-insured retentions, if any, stated in policies. Self-insured retentions shall be disclosed on the Certificate of Insurance.

xii. The Contractor shall provide the City thirty (30) calendar days' written notice of erosion of the aggregate limits below occurrence limits for all applicable coverages indicated within the Contract.

xiii. The insurance coverages specified in Section 0400, Supplemental Purchase Provisions, are required minimums and are not intended to limit the responsibility or liability of the Contractor.

B. Specific Coverage Requirements: Specific insurance requirements are contained in Section 0400, Supplemental Purchase Provisions

33. **CLAIMS**: If any claim, demand, suit, or other action is asserted against the Contractor which arises under or concerns the Contract, or which could have a material adverse affect on the Contractor's ability to perform thereunder, the Contractor shall give written notice thereof to the City within ten (10) calendar days after receipt of notice by the

Contractor. Such notice to the City shall state the date of notification of any such claim, demand, suit, or other action; the names and addresses of the claimant(s); the basis thereof; and the name of each person against whom such claim is being asserted. Such notice shall be delivered personally or by mail and shall be sent to the City and to the Austin City Attorney. Personal delivery to the City Attorney shall be to City Hall, 301 West 2nd Street, 4th Floor, Austin, Texas 78701, and mail delivery shall be to P.O. Box 1088, Austin, Texas 78767.

34. **NOTICES**: Unless otherwise specified, all notices, requests, or other communications required or appropriate to be given under the Contract shall be in writing and shall be deemed delivered three (3) business days after postmarked if sent by U.S. Postal Service Certified or Registered Mail, Return Receipt Requested. Notices delivered by other means shall be deemed delivered upon receipt by the addressee. Routine communications may be made by first class mail, telefax, or other commercially accepted means. Notices to the Contractor shall be sent to the address specified in the Contractor's Offer, or at such other address as a party may notify the other in writing. Notices to the City shall be addressed to the City at P.O. Box 1088, Austin, Texas 78767 and marked to the attention of the Contract Administrator.

35. **RIGHTS TO BID, PROPOSAL AND CONTRACTUAL MATERIAL**: All material submitted by the Contractor to the City shall become property of the City upon receipt. Any portions of such material claimed by the Contractor to be proprietary must be clearly marked as such. Determination of the public nature of the material is subject to the Texas Public Information Act, Chapter 552, Texas Government Code.

36. **NO WARRANTY BY CITY AGAINST INFRINGEMENTS**: The Contractor represents and warrants to the City that: (i) the Contractor shall provide the City good and indefeasible title to the Deliverables and (ii) the Deliverables supplied by the Contractor in accordance with the specifications in the Contract will not infringe, directly or contributorily, any patent, trademark, copyright, trade secret, or any other intellectual property right of any kind of any third party; that no claims have been made by any person or entity with respect to the ownership or operation of the Deliverables and the Contractor does not know of any valid basis for any such claims. The Contractor shall, at its sole expense, defend, indemnify, and hold the City harmless from and against all liability, damages, and costs (including court costs and reasonable fees of attorneys and other professionals) arising out of or resulting from: (i) any claim that the City's exercise anywhere in the world of the rights associated with the City's' ownership, and if applicable, license rights, and its use of the Deliverables infringes the intellectual property rights of any third party; or (ii) the Contractor's breach of any of Contractor's representations or warranties stated in this Contract. In the event of any such claim, the City shall have the right to monitor such claim or at its option engage its own separate counsel to act as co-counsel on the City's behalf. Further, Contractor agrees that the City's specifications regarding the Deliverables shall in no way diminish Contractor's warranties or obligations under this paragraph and the City makes no warranty that the production, development, or delivery of such Deliverables will not impact such warranties of Contractor.

37. **CONFIDENTIALITY**: In order to provide the Deliverables to the City, Contractor may require access to certain of the City's and/or its licensors' confidential information (including inventions, employee information, trade secrets, confidential know-how, confidential business information, and other information which the City or its licensors consider confidential) (collectively, "Confidential Information"). Contractor acknowledges and agrees that the Confidential Information is the valuable property of the City and/or its licensors and any unauthorized use, disclosure, dissemination, or other release of the Confidential Information will substantially injure the City and/or its licensors. The Contractor (including its employees, subcontractors, agents, or representatives) agrees that it will maintain the Confidential Information in strict confidence and shall not disclose, disseminate, copy, divulge, recreate, or otherwise use the Confidential Information without the prior written consent of the City or in a manner not expressly permitted under this Agreement, unless the Confidential Information is required to be disclosed by law or an order of any court or other governmental authority with proper jurisdiction, provided the Contractor promptly notifies the City before disclosing such information so as to permit the City reasonable time to seek an appropriate protective order. The Contractor agrees to use protective measures no less stringent than the Contractor uses within its own business to protect its own most valuable information, which protective measures shall under all circumstances be at least reasonable measures to ensure the continued confidentiality of the Confidential Information.

38. **PUBLICATIONS**: All published material and written reports submitted under the Contract must be originally developed material unless otherwise specifically provided in the Contract. When material not originally developed is included in a report in any form, the source shall be identified.

39. **ADVERTISING**: The Contractor shall not advertise or publish, without the City's prior consent, the fact that the City has entered into the Contract, except to the extent required by law.

40. **NO CONTINGENT FEES**: The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure the Contract upon any agreement or understanding for commission, percentage, brokerage, or contingent fee, excepting bona fide employees of bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the City shall have the right, in addition to any other remedy available, to cancel the Contract without liability and to deduct from any amounts owed to the Contractor, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee.

41. **GRATUITIES**: The City may, by written notice to the Contractor, cancel the Contract without liability if it is determined by the City that gratuities were offered or given by the Contractor or any agent or representative of the Contractor to any officer or employee of the City of Austin with a view toward securing the Contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such contract. In the event the Contract is canceled by the City pursuant to this provision, the City shall be entitled, in addition to any other rights and remedies, to recover or withhold the amount of the cost incurred by the Contractor in providing such gratuities.

42. **PROHIBITION AGAINST PERSONAL INTEREST IN CONTRACTS**: No officer, employee, independent consultant, or elected official of the City who is involved in the development, evaluation, or decision-making process of the performance of any solicitation shall have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any willful violation of this section shall constitute impropriety in office, and any officer or employee guilty thereof shall be subject to disciplinary action up to and including dismissal. Any violation of this provision, with the knowledge, expressed or implied, of the Contractor shall render the Contract voidable by the City.

43. **INDEPENDENT CONTRACTOR**: The Contract shall not be construed as creating an employer/employee relationship, a partnership, or a joint venture. The Contractor's services shall be those of an independent contractor. The Contractor agrees and understands that the Contract does not grant any rights or privileges established for employees of the City.

44. **ASSIGNMENT-DELEGATION**: The Contract shall be binding upon and enure to the benefit of the City and the Contractor and their respective successors and assigns, provided however, that no right or interest in the Contract shall be assigned and no obligation shall be delegated by the Contractor without the prior written consent of the City. Any attempted assignment or delegation by the Contractor shall be void unless made in conformity with this paragraph. The Contract is not intended to confer rights or benefits on any person, firm or entity not a party hereto; it being the intention of the parties that there be no third party beneficiaries to the Contract.

45. **WAIVER**: No claim or right arising out of a breach of the Contract can be discharged in whole or in part by a waiver or renunciation of the claim or right unless the waiver or renunciation is supported by consideration and is in writing signed by the aggrieved party. No waiver by either the Contractor or the City of any one or more events of default by the other party shall operate as, or be construed to be, a permanent waiver of any rights or obligations under the Contract, or an express or implied acceptance of any other existing or future default or defaults, whether of a similar or different character.

46. **MODIFICATIONS**: The Contract can be modified or amended only by a writing signed by both parties. No pre-printed or similar terms on any the Contractor invoice, order or other document shall have any force or effect to change the terms, covenants, and conditions of the Contract.

47. **INTERPRETATION**: The Contract is intended by the parties as a final, complete and exclusive statement of the terms of their agreement. No course of prior dealing between the parties or course of performance or usage of the trade shall be relevant to supplement or explain any term used in the Contract. Although the Contract may have been substantially drafted by one party, it is the intent of the parties that all provisions be construed in a manner to be fair to both parties, reading no provisions more strictly against one party or the other. Whenever a term defined by the Uniform Commercial Code, as enacted by the State of Texas, is used in the Contract, the UCC definition shall control, unless otherwise defined in the Contract.

48. **DISPUTE RESOLUTION**:

A. If a dispute arises out of or relates to the Contract, or the breach thereof, the parties agree to negotiate prior to prosecuting a suit for damages. However, this section does not prohibit the filing of a lawsuit to toll the running of a statute of limitations or to seek injunctive relief. Either party may make a written request for a meeting between representatives of each party within fourteen (14) calendar days after receipt of the request or such later period as agreed by the parties. Each party shall include, at a minimum, one (1) senior level individual with decision-making authority regarding the dispute. The purpose of this and any subsequent meeting is to attempt in good faith to negotiate a resolution of the dispute. If, within thirty (30) calendar days after such meeting, the parties have not succeeded in negotiating a resolution of the dispute, they will proceed directly to mediation as described below. Negotiation may be waived by a written agreement signed by both parties, in which event the parties may proceed directly to mediation as described below.

B. If the efforts to resolve the dispute through negotiation fail, or the parties waive the negotiation process, the parties may select, within thirty (30) calendar days, a mediator trained in mediation skills to assist with resolution of the dispute. Should they choose this option, the City and the Contractor agree to act in good faith in the selection of the mediator and to give consideration to qualified individuals nominated to act as mediator. Nothing in the Contract prevents the parties from relying on the skills of a person who is trained in the subject matter of the dispute or a contract interpretation expert. If the parties fail to agree on a mediator within thirty (30) calendar days of initiation of the mediation process, the mediator shall be selected by the Travis County Dispute Resolution Center (DRC). The parties agree to participate in mediation in good faith for up to thirty (30) calendar days from the date of the first mediation session. The City and the Contractor will share the mediator's fees equally and the parties will bear their own costs of participation such as fees for any consultants or attorneys they may utilize to represent them or otherwise assist them in the mediation.

49. **JURISDICTION AND VENUE**: The Contract is made under and shall be governed by the laws of the State of Texas, including, when applicable, the Uniform Commercial Code as adopted in Texas, V.T.C.A., Bus. & Comm. Code, Chapter 1, excluding any rule or principle that would refer to and apply the substantive law of another state or jurisdiction. All issues arising from this Contract shall be resolved in the courts of Travis County, Texas and the parties agree to submit to the exclusive personal jurisdiction of such courts. The foregoing, however, shall not be construed or interpreted to limit or restrict the right or ability of the City to seek and secure injunctive relief from any competent authority as contemplated herein.

50. **INVALIDITY**: The invalidity, illegality, or unenforceability of any provision of the Contract shall in no way affect the validity or enforceability of any other portion or provision of the Contract. Any void provision shall be deemed severed from the Contract and the balance of the Contract shall be construed and enforced as if the Contract did not contain the particular portion or provision held to be void. The parties further agree to reform the Contract to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this section shall not prevent this entire Contract from being void should a provision which is the essence of the Contract be determined to be void.

51. **HOLIDAYS:** The following holidays are observed by the City:

Holiday	Date Observed
New Year's Day	January 1
Martin Luther King, Jr.'s Birthday	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	First Monday in September
Veteran's Day	November 11

Thanksgiving Day	Fourth Thursday in November
Friday after Thanksgiving	Friday after Thanksgiving
Christmas Eve	December 24
Christmas Day	December 25

If a Legal Holiday falls on Saturday, it will be observed on the preceding Friday. If a Legal Holiday falls on Sunday, it will be observed on the following Monday.

52. **SURVIVABILITY OF OBLIGATIONS:** All provisions of the Contract that impose continuing obligations on the parties, including but not limited to the warranty, indemnity, and confidentiality obligations of the parties, shall survive the expiration or termination of the Contract.

53. **NON-SUSPENSION OR DEBARMENT CERTIFICATION:**

The City of Austin is prohibited from contracting with or making prime or sub-awards to parties that are suspended or debarred or whose principals are suspended or debarred from Federal, State, or City of Austin Contracts. By accepting a Contract with the City, the Vendor certifies that its firm and its principals are not currently suspended or debarred from doing business with the Federal Government, as indicated by the General Services Administration List of Parties Excluded from Federal Procurement and Non-Procurement Programs, the State of Texas, or the City of Austin.

54. **EQUAL OPPORTUNITY**

A. **Equal Employment Opportunity:** No Contractor, or Contractor's agent, shall engage in any discriminatory employment practice as defined in Chapter 5-4 of the City Code. No Offer submitted to the City shall be considered, nor any Purchase Order issued, or any Contract awarded by the City unless the Offeror has executed and filed with the City Purchasing Office a current Non-Discrimination Certification. Non-compliance with Chapter 5-4 of the City Code may result in sanctions, including termination of the contract and the Contractor's suspension or debarment from participation on future City contracts until deemed compliant with Chapter 5-4.

B. **Americans with Disabilities Act (ADA) Compliance:** No Contractor, or Contractor's agent, shall engage in any discriminatory practice against individuals with disabilities as defined in the ADA, including but not limited to: employment, accessibility to goods and services, reasonable accommodations, and effective communications.

55. **INTERESTED PARTIES DISCLOSURE**

As a condition to entering the Contract, the Business Entity constituting the Offeror must provide the following disclosure of Interested Parties to the City prior to the award of a contract with the City on Form 1295 "Certificate of Interested Parties" as prescribed by the Texas Ethics Commission for any contract award requiring council authorization. The Certificate of Interested Parties Form must be completed on the Texas Ethics Commission website, printed, and signed by the authorized agent of the Business Entity with acknowledgment that disclosure is made under oath and under penalty of perjury. The City will submit the "Certificate of Interested Parties" to the Texas Ethics Commission within 30 days of receipt from the successful Offeror. The Offeror is reminded that the provisions of Local Government Code 176, regarding conflicts of interest between the bidders and local officials remains in place. Link to Texas Ethics Commission Form 1295 process and procedures below:

https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

56. **BUY AMERICAN ACT-SUPPLIES (Applicable to certain Federally funded requirements)**

A. Definitions. As used in this paragraph –

i. "Component" means an article, material, or supply incorporated directly into an end product.

ii. "Cost of components" means -

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

iii. "Domestic end product" means-

(1) An unmanufactured end product mined or produced in the United States; or

(2) An end product manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic.

iv. "End product" means those articles, materials, and supplies to be acquired under the contract for public use.

v. "Foreign end product" means an end product other than a domestic end product.

vi. "United States" means the 50 States, the District of Columbia, and outlying areas.

B. The Buy American Act (41 U.S.C. 10a - 10d) provides a preference for domestic end products for supplies acquired for use in the United States.

C. The City does not maintain a list of foreign articles that will be treated as domestic for this Contract; but will consider for approval foreign articles as domestic for this product if the articles are on a list approved by another Governmental Agency. The Offeror shall submit documentation with their Offer demonstrating that the article is on an approved Governmental list.

D. The Contractor shall deliver only domestic end products except to the extent that it specified delivery of foreign end products in the provision of the Solicitation entitled "Buy American Act Certificate".

CITY OF AUSTIN
PURCHASING OFFICE
SUPPLEMENTAL PURCHASE PROVISIONS

The following Supplemental Purchasing Provisions apply to this solicitation:

1. **EXPLANATIONS OR CLARIFICATIONS:** (reference paragraph 5 in Section 0200)

   All requests for explanations or clarifications must be submitted in writing to the Purchasing Office by end of business day on 03/10/2017 to sai.xoomsai@austintexas.gov.

   All requests for **Buyer Approved Equal** of any product must be submitted in writing to the Purchasing Office by end of business day on 03/10/2017 to sai.xoomsai@austintexas.gov.

2. **INSURANCE:** Insurance is required for this solicitation.

   A. **General Requirements:** See Section 0300, Standard Purchase Terms and Conditions, paragraph 32, entitled Insurance, for general insurance requirements.

      i. The Contractor shall provide a Certificate of Insurance as verification of coverages required below to the City at the below address prior to contract execution and within 14 calendar days after written request from the City. Failure to provide the required Certificate of Insurance may subject the Offer to disqualification from consideration for award
      ii. The Contractor shall not commence work until the required insurance is obtained and until such insurance has been reviewed by the City. Approval of insurance by the City shall not relieve or decrease the liability of the Contractor hereunder and shall not be construed to be a limitation of liability on the part of the Contractor.
      iii. The Contractor must also forward a Certificate of Insurance to the City whenever a previously identified policy period has expired, or an extension option or holdover period is exercised, as verification of continuing coverage.
      iv. The Certificate of Insurance, and updates, shall be mailed to the following address:

         City of Austin Purchasing Office
         P. O. Box 1088
         Austin, Texas 78767

   B. **Specific Coverage Requirements:** The Contractor shall at a minimum carry insurance in the types and amounts indicated below for the duration of the Contract, including extension options and hold over periods, and during any warranty period. These insurance coverages are required minimums and are not intended to limit the responsibility or liability of the Contractor.

      i. **Worker's Compensation and Employers' Liability Insurance:** Coverage shall be consistent with statutory benefits outlined in the Texas Worker's Compensation Act (Section 401). The minimum policy limits for Employer's Liability are $100,000 bodily injury each accident, $500,000 bodily injury by disease policy limit and $100,000 bodily injury by disease each employee.
         (1) The Contractor's policy shall apply to the State of Texas and include these endorsements in favor of the City of Austin:
            (a) Waiver of Subrogation, Form WC420304, or equivalent coverage
            (b) Thirty (30) days Notice of Cancellation, Form WC420601, or equivalent coverage
      ii. **Commercial General Liability Insurance:** The minimum bodily injury and property damage per occurrence are $500,000 for coverages A (Bodily Injury and Property Damage) and B (Personal and Advertising Injury).
         (1) The policy shall contain the following provisions:
            (a) Contractual liability coverage for liability assumed under the Contract and all other Contracts related to the project.
            (b) Contractor/Subcontracted Work.
            (c) Products/Completed Operations Liability for the duration of the warranty period.

(d) If the project involves digging or drilling provisions must be included that provide Explosion, Collapse, and/or Underground Coverage.

(2) The policy shall also include these endorsements in favor of the City of Austin:
(a) Waiver of Subrogation, Endorsement CG 2404, or equivalent coverage
(b) Thirty (30) days Notice of Cancellation, Endorsement CG 0205, or equivalent coverage
(c) The City of Austin listed as an additional insured, Endorsement CG 2010, or equivalent coverage

iii. **Business Automobile Liability Insurance:** The Contractor shall provide coverage for all owned, non-owned and hired vehicles with a minimum combined single limit of $500,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are $250,000 bodily injury per person, $500,000 bodily injury per occurrence and at least $100,000 property damage liability per accident.

(1) The policy shall include these endorsements in favor of the City of Austin:
(a) Waiver of Subrogation, Endorsement CA0444, or equivalent coverage
(b) Thirty (30) days Notice of Cancellation, Endorsement CA0244, or equivalent coverage
(c) The City of Austin listed as an additional insured, Endorsement CA2048, or equivalent coverage.

C. **Endorsements:** The specific insurance coverage endorsements specified above, or their equivalents must be provided. In the event that endorsements, which are the equivalent of the required coverage, are proposed to be substituted for the required coverage, copies of the equivalent endorsements must be provided for the City's review and approval.

3. **TERM OF CONTRACT:**

A. The Contract shall be in effect for an initial term of 12 months and may be extended thereafter for up to four additional 12-month periods, subject to the approval of the Contractor and the City Purchasing Officer or his designee.

B. Upon expiration of the initial term or period of extension, the Contractor agrees to hold over under the terms and conditions of this agreement for such a period of time as is reasonably necessary to re-solicit and/or complete the project (not to exceed 120 days unless mutually agreed on in writing).

C. Upon written notice to the Contractor from the City's Purchasing Officer or his designee and acceptance of the Contractor, the term of this contract shall be extended on the same terms and conditions for an additional period as indicated in paragraph A above.

D. Prices are firm and fixed for the term of the contract. Thereafter, price changes are subject to the Economic Price Adjustment provisions of this Contract.

4. **QUANTITIES:** The quantities listed herein are estimates for the period of the Contract. The City reserves the right to purchase more or less of these quantities as may be required during the Contract term. Quantities will be as needed and specified by the City for each order. Unless specified in the solicitation, there are no minimum order quantities.

5. **INVOICES and PAYMENT:** (reference paragraphs 12 and 13 in Section 0300)

A. Invoices shall contain a unique invoice number and the information required in Section 0300, paragraph 12, entitled "Invoices." Invoices received without all required information cannot be processed and will be returned to the vendor.

Invoices shall be mailed to the below address:

	City of Austin
Department	Communication Technology Management
Attn:	Account Payable
E- Mail Address	CTMAPInvoice@austintexas.gov

B. The Contractor agrees to accept payment by either credit card, check or Electronic Funds Transfer (EFT) for all goods and/or services provided under the Contract. The Contractor shall factor the cost of processing credit card payments into the Offer. There shall be no additional charges, surcharges, or penalties to the City for payments made by credit card.

6. **RETAINAGE:** The City will withhold 10 percent (10%) retainage until completion of all work required by the Contract. The Contractor's invoice shall indicate the amount due, less the retainage. Upon final acceptance of the work, the Contractor shall submit an invoice for the retainage to the City and payment will be made as specified in the Contract. Payment of the retainage by the City shall not constitute nor be deemed a waiver or release by the City of any of its rights and remedies against the Contractor for recovery of amounts improperly invoiced or for defective, incomplete or non-conforming work under the Contract.

7. **LIVING WAGES:**

A. The minimum wage required for any Contractor employee directly assigned to this City Contract is $13.50 per hour, unless Published Wage Rates are included in this solicitation. In addition, the City may stipulate higher wage rates in certain solicitations in order to assure quality and continuity of service.

B. The City requires Contractors submitting Offers on this Contract to provide a certification **(see the Living Wages Contractor Certification included in the Solicitation**) with their Offer certifying that all employees directly assigned to this City Contract will be paid a minimum living wage equal to or greater than $13.50 per hour. The certification shall include a list of all employees directly assigned to providing services under the resultant contract including their name and job title. The list shall be updated and provided to the City as necessary throughout the term of the Contract.

C. The Contractor shall maintain throughout the term of the resultant contract basic employment and wage information for each employee as required by the Fair Labor Standards Act (FLSA).

D. The Contractor shall provide to the Department's Contract Manager with the first invoice, individual Employee Certifications for all employees directly assigned to the contract. The City reserves the right to request individual Employee Certifications at any time during the contract term. Employee Certifications shall be signed by each employee directly assigned to the contract. The Employee Certification form is available on-line at https://www.austintexas.gov/financeonline/vendor_connection/index.cfm.

E. Contractor shall submit employee certifications annually on the anniversary date of contract award with the respective invoice to verify that employees are paid the Living Wage throughout the term of the contract. The Employee Certification Forms shall be submitted for employees added to the contract and/or to report any employee changes as they occur.

F. The Department's Contract Manager will periodically review the employee data submitted by the Contractor to verify compliance with this Living Wage provision. The City retains the right to review employee records required in paragraph C above to verify compliance with this provision.

8. **NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING:**

A. On November 10, 2011, the Austin City Council adopted Ordinance No. 20111110-052 amending Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). During the No-Contact Period, Offerors or potential Offerors are prohibited from making a representation to anyone other than the Authorized Contact Person in the Solicitation as the contact for questions and comments regarding the Solicitation.

B. If during the No-Contact Period an Offeror makes a representation to anyone other than the Authorized Contact Person for the Solicitation, the Offeror's Offer is disqualified from further consideration except as permitted in the Ordinance.

C. If an Offeror has been disqualified under this article more than two times in a sixty (60) month period, the Purchasing Officer shall debar the Offeror from doing business with the City for a period not to exceed three (3) years, provided the Offeror is given written notice and a hearing in advance of the debarment.

D. The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly made representations to anyone other than the Authorized Contact Person during the No-Contact Period as defined in the Ordinance. The text of the City Ordinance is posted on the Internet at: http://www.ci.austin.tx.us/edims/document.cfm?id=161145

9. **WORKFORCE SECURITY CLEARANCE AND IDENTIFICATION (ID):**

A. Contractors are required to obtain a certified criminal background report with fingerprinting (referred to as the "report") for all persons performing on the contract, including all Contractor, Subcontractor, and Supplier personnel (for convenience referred to as "Contractor's personnel").

B. The report may be obtained by reporting to one of the below governmental entities, submitting to fingerprinting and requesting the report [requestors may anticipate a two-week delay for State reports and up to a four to six week delay for receipt of a Federal report.].

i. Texas Department of Public Safety for any person currently residing in the State of Texas and having a valid Texas driver's license or photo ID card;
ii. The appropriate governmental agency from either the U.S. state or foreign nation in which the person resides and holds either a valid U.S. state-issued or foreign national driver's license or photo ID card; or
iii. A Federal Agency. A current Federal security clearance obtained from and certified by a Federal agency may be substituted.

C. Contractor shall obtain the reports at least 30 days prior to any onsite work commencement. Contractor also shall attach to each report the project name, Contractor's personnel name(s), current address(es), and a copy of the U.S. state-issued or foreign national driver's license or photo ID card.

D. Contractor shall provide the City a Certified Criminal Background Report affirming that Contractor has conducted required security screening of Contractor's personnel to determine those appropriate for execution of the work and for presence on the City's property. A list of all Contractor Personnel requiring access to the City's site shall be attached to the affidavit.

E. Upon receipt by the City of Contractor's affidavit described in (D) above and the list of the Contractor's personnel, the City will provide each of Contractor's personnel a contractor ID badge that is required for access to City property that shall be worn at all times by Contractor's personnel during the execution of the work.

F. The City reserves the right to deny an ID badge to any Contractor personnel for reasonable cause, including failure of a Criminal History background check. The City will notify the Contractor of any such denial no more than twenty (20) days after receipt of the Contractor's reports. Where denial of access by a particular person may cause the Contractor to be unable to perform any portion of the work of the contract, the Contractor shall so notify the City's Contract Manager, in writing, within ten (10) calendar days of the receipt of notification of denial.

G. Contractor's personnel will be required to wear the ID badge at all times while on the work site. Failure to wear or produce the ID badge may be cause for removal of an individual from the work site, without regard to Contractor's schedule. Lost ID badges shall be reported to the City's Contract Manager. Contractor shall reimburse the City for all costs incurred in providing additional ID badges to Contractor Personnel.

H. ID badges to enter and/or work on the City property may be revoked by the City at any time. ID badges must be returned to the City at the time of project completion and acceptance or upon removal of an individual from the work site.

I. Contractor is not required to obtain reports for delivery personnel, including but not limited to FedEx, UPS, Roadway, or other materials delivery persons, however all delivery personnel must present company/employer-issued photo ID and be accompanied by at least one of Contractor's personnel at all times while at the work site.

J. The Contractor shall retain the reports and make them available for audit by the City during regular business hours (reference paragraph 17 in Section 0300, entitled Right to Audit).

10. **MONTHLY SUBCONTRACT AWARDS AND EXPENDITURES REPORT:** (reference paragraph 18 in Section 0300) (applicable when an MBE/WBE Compliance Plan is required)

A. The Contractor must submit a monthly Subcontract Awards and Expenditures Report to the Contract Manager specified herein and to the Purchasing Office Contract Compliance Manager no later than the tenth calendar day of each month.

B. Mail the Purchasing Office Copy of the report to the following address:

City of Austin
Purchasing Office
Attn: Contract Compliance Manager
P. O. Box 1088
Austin, Texas 78767

11. **INTERLOCAL PURCHASING AGREEMENTS:** (applicable to competitively procured goods/services contracts).

A. The City has entered into Interlocal Purchasing Agreements with other governmental entities, pursuant to the Interlocal Cooperation Act, Chapter 791 of the Texas Government Code. The Contractor agrees to offer the same prices and terms and conditions to other eligible governmental agencies that have an interlocal agreement with the City.

B. The City does not accept any responsibility or liability for the purchases by other governmental

agencies through an interlocal cooperative agreement.

12. **CONTRACT MANAGER:** The following person is designated as Contract Manager, and will act as the contact point between the City and the Contractor during the term of the Contract:

Brenda Barnard

Brenda.Barnard@austintexas.gov

(512) 974-6517

*Note: The above listed Contract Manager is not the authorized Contact Person for purposes of the **NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING Provision** of this Section; and therefore, contact with the Contract Manager is prohibited during the no contact period.

Scope of Work

SOLICITATION NO. PAX0141

Description: Audio Visual Equipment, Design, Installation Services for the Austin/Travis County Emergency Operations Center (A/TCEOC) and Combined Transportation & Emergency Communications Center (CTECC)

1.0 Purpose

1.1 The City of Austin (City) Austin/Travis County Emergency Operations Center (A/TCEOC) and the Combined Transportation & Emergency Communications Center (CTECC) seeks proposals for a fully integrated, operational and turnkey audiovisual system. The system shall support all emergency operations and training efforts within the Emergency Operations Center (EOC) and provide the capability to distribute video throughout the CTECC facility using the existing Ethernet network.

The scope of the executed contract shall include the following:

1.1.1 System design
1.1.2 Project management
1.1.3 Software licensing and configuration
1.1.4 Hardware
1.1.5 Equipment and cabling installation
1.1.6 Technical design documents and as-built drawings
1.1.7 Requirements-gathering for controls programming
1.1.8 Controls programming and graphics
1.1.9 Plan to minimize downtime during installation due to the critical nature of the EOC and CTECC
1.1.10 Full implementation and integration of a functional audiovisual system
1.1.11 Development and implementation of a test environment (to test software upgrades/patches)
1.1.12 Development of an acceptance test plan and testing
1.1.13 Training and training materials for the new system
1.1.14 Product documentation and manuals
1.1.15 End user training for selected City Staff

1.2 The City will not provide the current set system design, facilities detail sheets, electrical drawings and detailed equipment list. Pricing for all related required work, drawings, related parts and equipment shall be included within the pricing documents (Appendix A).

2.0 Introduction and Background

2.1 There are technically two sections of this system that support two areas that will share data back and forth. These areas are the A/TCEOC and the CTECC. A/TCEOC is a central facility that permits coordinated decision-making and support for major emergencies for both the City of Austin and Travis County. Additionally, the A/TCEOC serves as a training center when not activated for emergency operations. The A/TCEOC, also referred to in this document as the EOC is located within the Combined Transportation, Emergency & Communications Center (CTECC). The A/TCEOC's audiovisual systems were originally installed in 2003 and are in need of a major renovation. The original systems are based upon a completely analog video distribution system utilizing RGBHV, component and composite video cabling.

2.2 The CTECC is also included in this statement of work. Currently, the CTECC operations floor video system is composed of 60 rear projection Mitsubishi Cubes. The Mitsubishi cubes

were updated with new LED light engines last summer. The remaining equipment has been in place since 2003. The CTECC Operations floor supports 911 calls and operations for various agencies including the Texas Department of Transportation (TxDOT), Travis County Sherriff's Office (TCSO), the Capital Metropolitan Transit Authority (Capital Metro), the Austin Police Department, Austin-Travis County Emergency Medical Services (A/TCEMS) and the Austin Fire Department (AFD).

The intent of the audiovisual upgrade is to provide the A/TCEOC and CTECC with a new, fully integrated network-based audiovisual system that is completely digital and scalable. In order to achieve this objective, it is imperative that the existing analog systems be removed and replaced to accommodate the latest digital video display and network-based distribution technologies. Further, it is the Contractor's responsibility to take into account existing infrastructure items that might be reused or repurposed, without degrading or impacting the new systems, for a cost-effective solution.

2.3 The project is based upon these key components:

2.3.1 Content Management
2.3.1.1 The aggregation and management of all sources coming into the building
2.3.2 Encoding/ Decoding
2.3.2.1 Encoding all analog and digital sources into an IP stream
2.3.2.2 Decoding local IP streams as well as remote camera IP streams made available to the Austin-Travis County Emergency Operations Center and the Combined Transportation, Emergency and Communications Center
2.3.3 Acquisition of a wide variety of "sources" in the building to include local desktops (as a source).
2.3.4 Distribution/ Transport
2.3.4.1 Transporting the encoded information over an ubiquitous IP network to various spaces within the building such as the CTECC, EOC and other ancillary locations.

Upon completion of the project, the intent is to ensure that the City of Austin and Travis County have the immediate ability to dynamically adjust video display or video inputs to maintain situational awareness of an incident(s). The approach to Content Management is critical to the success of organizing, acquiring and distributing this digital information in a cost-effective manner. The Content Management platform shall be a single entity, which is the over-arching point of access to the system. It shall be structured in such a manner, that with appropriate access rights, sources shall be rapidly acquired and distributed, regardless of location.

2.4 The CTECC Command Center Floor
2.4.1 CTECC is a 24/7 operational 911 command center for all of the Austin/Travis County area. This location includes TxDOT, City of Austin, Travis County and other agencies occupying various areas in front of the main display systems.
2.4.1.1 CTECC Current State
2.4.1.1.1 The front of the room has four (4) existing video walls. These are composed of three (3) smaller 2 high by 2 wide video walls that are free standing and one (1) larger 4 high by 12 wide video wall that is mounted to an elevated cat walk located in the front of the room. These systems are existing 4:3 rear projection cubes that have recently been updated to LED units.
2.4.1.1.2 Each agency is located in a separate area around the operations floor as to not cause distraction from the other agencies.
2.4.1.1.3 There are three (3) main control workstations for the current video display system located on the floor.

2.4.1.2 CTECC Future State

2.4.1.2.1 Two (2) Barco Clickshare Classics, or approved equal, for this space shall be included in this proposal and shall be located in the AV Video Wall Rack Room. These shall require IP Encoders into the system and will also require antenna extensions to reach the CTECC. The antenna extensions shall be mounted up high on the catwalk supporting the top video wall. In addition, each Clickshare, or approved equal, will require Four (4) pucks.

2.4.1.2.2 Audio Playback shall be provided via operator's workstation headsets.

2.4.1.2.3 The Video Wall Processor and content management system shall allow for at least 20 independent presets with the opportunity for CTECC personnel to modify the presets and add new presets as they see fit. The new presets shall be able to be stored for future recall. In addition, the Video Wall Processor and content management shall also be capable of active scalable windowing, which will allow advanced users and administrators the ability to actively resize the windows as necessary. Advanced Users and administrators shall also have the ability to start with a blank video wall image and add source material in drag/ drop fashion as necessary. These settings shall be savable by the administrator. Any video signal shall be capable of being sent to any all displays throughout the facility.

2.4.1.3 CTECC Display Systems

2.4.1.3.1 The existing video cube systems shall remain. Output nodes shall support all 60 Mitsubishi LED rear projection units.

2.4.1.3.2 Video Wall Processor

2.4.1.3.2.1 The vendor recommended video wall processor will be the central hub for display and control of the video cubes and shall accommodate both analog and digital video sources as noted in the Input/ Output Matrix contained within this document.

2.4.1.3.2.2 The processor shall display at a minimum (60) simultaneous windowed HD sources on the primary wall.

2.4.1.3.3 A primary goal of this project is to provide a distribution system for both audio and video that is versatile, scalable and future-proof. In order to insure future upgradability and expansion, an IP based system is to be deployed. Note the provided Input/ Output Matrix for specific locations and quantities of nodes (Appendix B). As user demand for sources or display devices change over time, CTECC shall be able to add additional input and output nodes as necessary.

2.4.1.3.4 The IP based video management system shall have role based security that is used to control which of the video inputs are available for the end-user on her/his computer. This role based security shall be LDAP compliant.

2.4.1.3.5 Audio Systems are needed only in the EOC and shall support the following major functions of the system:

2.4.1.3.5.1 Program audio for all available sources to program audio speakers and individual operator's laptops

2.4.1.3.5.2 Speech reinforcement

2.4.1.3.5.3 All available audio sources shall be integrated into the IP distribution system.

2.4.1.3.5.4 All operator workstations shall be equipped with appropriate software to enable operators to selectively listen to audio content via user supplied headphones.

2.4.1.3.5.5 New audio processing systems shall be provided and incorporate all necessary input, output, and feedback reduction as necessary.

2.4.1.3.5.6 A new Digitally Encrypted wireless microphone system shall be provided for use in the EOC area.

2.4.2 Control Systems - Future State

2.4.2.1 The existing control system shall be replaced with one that is remote access capable via a web-based interface.

2.4.2.2 The control processor shall support the various displays, projection systems, video and in the EOC, the audio sources, as required.

2.4.2.3 All programming shall be performed by one of the two pre-approved specialized third party programming firms with Texas based offices. Adequate time shall be provided to insure complete systems integration is provided to the Owners satisfaction

2.4.2.3.1 PepperDash

2.4.2.3.2 ICS+

2.4.2.4 All necessary programming and support hardware requirements (control expansion devices, servers, switches, etc.) to provide a fully functioning system shall be provided. AV Contractor shall include a separate line item cost for remote asset management systems such as AMX RMS or Crestron Fusion.

2.4.3 Equipment Location – Future State

2.4.3.1 In the EOC, existing equipment is currently stored within an AV storage room located directly behind the bottom left free standing 2X2 wall within four equipment enclosures. In order to minimize the downtime to the CTECC, the AV Contractor shall supply new equipment enclosures. Although some devices may need to be located within the existing location, it is the desire of the CTECC to locate the majority of the devices within the Main IT data center located on the 1st floor of the building.

2.4.4 Centralized Equipment – Future State

2.4.4.1 As noted above, the equipment that shall be shared between the EOC, conference rooms and CTECC shall be located on the 1st Floor.

2.4.5 Optional or Future Functionality

2.4.5.1 Display Systems

2.4.5.1.1 Rooms 317, 320B and 320C shall have separate line item pricing for a laser phosphor projector with at least 3500 ANSI lumens and 1920X1080 resolution.

2.4.5.2 IP based video distribution

2.4.5.2.1 Line item pricing shall be provided for alternate video distribution to offsite Tablet and Phone based field units.

2.4.5.2.2 Line item pricing shall be provided for additional system inputs and outputs. These may be used for additional inputs and outputs to send video to and from other agencies around the City of Austin/Travis County areas.

2.5 The EOC/ CTECC is composed of the following spaces and functional requirements. These spaces form an integrated system which allows for complete information sharing between all spaces. The current equipment in these spaces is listed below; the Clickshare, or approved equal, which are future state items, are so noted.

2.5.1 Emergency Operations Center (3rd Floor):

2.5.1.1 Open bullpen style room
2.5.1.2 Fifty-five (55) operator laptops with audio/video preview and control
2.5.1.3 Twenty (20) desktop computers
2.5.1.4 Three (3) Barco Clickshare, or approved equal- Four (4) pucks each – future
2.5.1.5 Podium with a/v and presentation preview and control
2.5.1.6 One (1) master control station for total room control
2.5.1.7 Web and tablet based control for owner furnished equipment (OFE)
2.5.1.8 Discretionary audio/video press feed to media viewing area
2.5.1.9 Room based audio/video conferencing through digital signal processor (DSP) and video
2.5.1.10 Wireless microphone system
2.5.1.11 Three (3) confidence monitors, one located at the base of each table
2.5.1.12 Four (4) document cameras
2.5.1.13 Integrated room audio (as per section 2.4.1.2.11.6 above)

2.5.2 Room 317

2.5.2.1 Twelve (12) seat breakout room
2.5.2.2 Eight (8) laptops
2.5.2.3 One (1) Barco Clickshare, or approved equal - Two (2) pucks each – future
2.5.2.4 Four (4) positions with no computer
2.5.2.5 One (1) desktop computer
2.5.2.6 One (1) control station for room control located inside a podium
2.5.2.7 Integrated room audio

2.5.3 Room 320B

2.5.3.1 Twelve (12) seat breakout room
2.5.3.2 Eight (8) laptops
2.5.3.3 One (1) Barco Clickshare, or approved equal - Two (2) pucks each – future
2.5.3.4 One (1) desktop computer
2.5.3.5 One (1) control station for room control located on the wall
2.5.3.6 Integrated room audio

2.5.4 Room 320C

2.5.4.1 Twelve (12) seat breakout room
2.5.4.2 Six (6) desktop computers
2.5.4.3 One (1) Barco Clickshare, or approved equal - Two (2) pucks each – future
2.5.4.4 Six (6) positions with no computer
2.5.4.5 SmartBoard
2.5.4.6 Integrated audio

2.5.5 CTECC Operations Floor

2.5.5.1 One Hundred Fifteen (115) operator stations
2.5.5.2 Five (5) desktop computers
2.5.5.3 Two (2) Barco Clickshares, or approved equal - Four (4) pucks each – future

2.6 The A/TCEOC/ CTECC requires an integrated network-based content distribution system that supports each of the rooms as an extension of the system. The content shall be accessible anywhere within the system, with the appropriate user rights, including but not limited to:

2.6.1 Local sources
2.6.2 Streaming sources (traffic, web)
2.6.3 Mobile devices
2.6.4 TV channels
2.6.5 Audio sources
2.6.6 Laptop desktop and applications (software client)

2.7 The proposed system shall support the A/TCEOC/ CTECC and shall be capable of data-sharing throughout CTECC, facility-wide. The City's future expansion plan is for the proposed system to be scaled so that it can be extended to off-site locations via the Wide Area Network (WAN). The respondent shall propose a solution that is capable of being scaled to accommodate these future requirements.

2.8 The City requires as much equipment as possible be consolidated and centrally located. There is an existing equipment closet with adequate space to accommodate at least three (3) full height equipment cabinets, with adequate power and environmental conditioning located within the EOC proper. The datacenter on the first floor of the building shall house the Internet Protocol (IP) equipment. (See section 2.4.3 and 2.4.4 for additional information above.) The City strongly prefers as much of the equipment be located in the data center as possible.

2.9 Currently there are three screens for projection in the main EOC. It is the intent that with this project, one large front projection, fixed screen be secured that is approximately 7'0" tall x 44'0" wide to provide a video wall.

2.10 The A/TCEOC staff use videoconferencing capabilities (Vidyo, which is end-of-life) approximately 10% of the time when an activation occurs. Vendors are asked to propose an optional video conferencing solution that is cost effective. The proposed IP based video management system shall integrate with this optional video conference system.The video conference system shall be Cisco, or approved equal.

3.0 **City's Responsibilities: The City will**

3.1 Facilitate communications between the appropriate resources within the City departments and the Contractor.

3.2 Provide a Project Manager for work sessions, prioritization, coordination, and scheduling with the Contractor's Project Manager

3.3 Provide access to office sites during normal business hours, based on approved Criminal Background Investigation (CBI) and formal badging processes.

3.4 Provide available documentation, as requested and/or access to technical resources.

3.5 Provide risks and issues and associated mitigation strategies during the system design document reviews ensuring that all networking and security requirements will be met, specific to the A/TCEOC/ CTECC.

3.6 Facilitate communication between the Contractor and the contracted audiovisual consultant (AV Consultant).

3.7 Provide office space for Contractor project team members or technical staff when onsite, if needed and as available.

3.8 Provide facilities for all meetings, work sessions and training classes, including audiovisual equipment.

3.9 Participate in acceptance testing of the system.

3.10 Participate in requirements-gathering for control system design

3.11 Participate in training classes provided by the AV Contractor.

3.12 Provide review and approval of milestones, deliverables, status reports and invoices.

3.13 Provide Information Technology (IT) security reviews on all software to be deployed on the City equipment.

3.14 Determine if any of the work on the project can be subcontracted for cost savings. (The City may choose to leverage existing contracts for some of the work required, such as, but not limited to data cabling services.)

3.15 Provide escorted access to facility loading dock at CTECC by appointment.

4.0 **Contractor's Responsibilities: The Contractor Shall**

4.1 Provide a user-centric, unified control and management system to simplify the complexities of the operation of the system with a purpose built modern, responsive, mobile ready, user interface with the ability to monitor and manage the entire integrated system.

4.2 Provide appropriate interfaces and training materials for up to three general levels of users:

4.2.1 Simplified non-technical user interfaces, designed for operators with little to no previous training on the operation of the system,

4.2.2 Experienced technical user interface for trained staff, and

4.2.3 Administrator interface for system administrator access.

4.3 Provide a solution that is reliable and scalable for the future expansion of other spaces within the CTECC building to include the operations floor, and ensure that future requirements of sharing audio and video via the Wide Area Network (WAN) will accommodate facility-wide and potential off-site locations.

4.4 Provide a solution that has role based security that controls what video sources the user is able to access/view. This role based security will be Active Directory compliant/enabled.

4.5 Remove, in coordination with City staff, cabling, old electronics, mounting systems and other devices that are not in use and that will not be used upon the implementation of the new systems.

4.6 Evaluate for reuse, remove and/or relocate the following equipment, as appropriate (Note: All equipment identified as "not required" is to be reviewed with the AV Consultant and the City prior to any planned disposal):

4.6.1 Main EOC

4.6.1.1 Three (3) ceiling mounted video projectors (not required in final implementation)
4.6.1.2 Three (3) projector ceiling mounts (evaluate for reuse)
4.6.1.3 Three (3) ceiling mounted front projection screens (not required in final implementation)
4.6.1.4 Ten (10) 42" flat screen monitors (Not required in final implementation, evaluate for reuse elsewhere)
4.6.1.5 Ten (10) flat panel ceiling mounts (evaluate for reuse)
4.6.1.6 Seventy-five (75) analog audio receivers at operator workstations (not required in final implementation)
4.6.1.7 Three (3) confidence monitors (evaluate for reuse)
4.6.1.8 One (1) master A/V touch screen control panel (not required in final implementation)
4.6.1.9 Three (3) Secondary A/V touch screen control panels (not required in final implementation)

4.6.2 Room 317

4.6.2.1 One (1) ceiling mounted video projector (evaluate for reuse)
4.6.2.2 One (1) projector ceiling mount (evaluate for reuse)
4.6.2.3 One (1) ceiling mounted front projection screen (evaluate for reuse)
4.6.2.4 One (1) 65" flat screen television (evaluate for reuse)
4.6.2.5 One (1) touch panel (evaluate for reuse)
4.6.2.6 Racked equipment (evaluate for reuse)

4.6.3 Room 320B

4.6.3.1 One (1) ceiling mounted video projector (not required in final implementation)
4.6.3.2 One (1) Projector ceiling mount (evaluate for reuse)
4.6.3.3 One (1) ceiling mounted front projection screen (evaluate for reuse)
4.6.3.4 One (1) 42" flat screen monitor (evaluate for reuse)
4.6.3.5 One (1) flat panel wall mount (evaluate for reuse)
4.6.3.6 Racked equipment (evaluate for reuse)

4.6.4 Room 320C

4.6.4.1 One (1) 42" flat screen monitor (evaluate for reuse)
4.6.4.2 One (1) flat panel wall mount (evaluate for reuse))
4.6.4.3 One (1) SmartBoard (evaluate for reuse)

4.6.5 Media Briefing Area

4.6.5.1 One (1) ceiling mounted video projector (evaluate for reuse)
4.6.5.2 Racked equipment (evaluate for reuse)

4.6.6 Radio Room

4.6.6.1 Coax cable
4.6.6.2 Audio volume control
4.6.6.3 Switching to media viewing room (evaluate for reuse)

4.7 Provide audio and video distribution via a fault tolerant Internet Protocol (IP) distribution system that affords the operators the benefit of a multitude of sources that can be accessed and displayed on any device within the EOC's or CTECC's audiovisual network.

4.8 Provide imaging in the main EOC on four (4) projectors for a unitized image to cover a screen of approximately 7'0" tall x 44'0" wide (also provided by the Contractor).

4.9 Provide Ten (10) 65" nominal LED flat panel displays, suitable for use in a 24-7 environment. The displays shall have a resolution of 1080p minimum. These displays should use existing mounting infrastructure.

4.10 Provide the ability to show images on any of the displays in CTECC. The CTECC video cube system shall be considered as a single continuous desktop with the inherent capability of displaying 60 simultaneous images in any configuration, resolution or aspect ratio. Imaging in the main EOC shall be considered a single, contiguous desktop image with the inherent capability of displaying a minimum of twelve (12) simultaneous images in any configuration, resolution or aspect ratio.

4.11 Provide a design that allows all video sources the ability to be shown on any of the displays in the EOC. (Refer to the Input/Out Matrix for specific sources and destinations in Appendix B).

4.12 Provide audio playback via ceiling mounted speakers and deliver audio to laptops.

4.13 Provide equipment and connectivity in order to avoid system failure during a network outage to include, but not limited to:

4.13.1 One (1) High Definition Multimedia Interface (HDMI) connection from the AV equipment enclosure to each projector

4.13.2 One (1) HDMI connection from the AV equipment enclosure to each of the tables within the main EOC room.
4.13.3 Keep the existing COAX distribution located behind each of the flat panel displays in the facility in order to avoid loss of CATV signals in the event of a system failure.
4.13.4 Cables shall be clearly labeled to show destination locations.

4.14 Provide an IP based system that incorporates existing video sources that is scalable for growth and integration with other systems.

4.15 Provide a standardized cable infrastructure in support of network distribution that conforms to current cable management practices at CTECC.

4.16 Provide an easy-to-use web interface for source distribution, with all sources available to be seen and heard with minimal latency due to encoding/decoding.

4.17 Provide an audio system to support major functions within the system and/or to work independently as a stand-alone system.

4.18 Integrate audio sources into the IP distribution system.

4.19 Replace existing video conferencing system with a new video conferencing system. The system must include multisite and video sharing .

4.20 Provide audio to each laptop provided by the IP video/audio distribution system so that users may listen to any of the CATV sources through the City's furnished headphones. Any audio source should be able to be heard through the IP audio system. No audio mixing is needed, nor overriding emergency broadcast is needed.

4.21 Provide new digitally encrypted wireless microphone system that includes:

4.21.1 Eight (8) rechargeable wireless handheld microphones
4.21.2 Two (2) wireless lavalier microphones
4.21.3 Appropriate antennae distribution for a drop-out free environment
4.21.4 Wireless microphone battery docking stations for handheld and lavalier microphones

4.22 Replace the existing control system to provide an updated system that offers remote access capability via a web-based program.

4.23 Include all necessary programming and support hardware requirements (control expansion devices, servers, switches, etc.) to provide a fully functioning system.

4.24 Integrate existing lighting control system into the new control system.

4.25 Provide adequate time for programming with the third-party programming firms to ensure complete systems integration is provided to the City's satisfaction.

4.26 Provide new equipment enclosures (and include all necessary side panels, front and rear doors, cooling, blanks, shelves, casters and power distribution.)

4.27 Confirm and/or provide the necessary information for the existing equipment closet to be brought up to the specifications required to support all the equipment to be provided. It is the

intent that all appropriate switching, distribution, processing, routers, amplifiers, etc. be located in this area.

4.28 Retain all existing sources for each room. See Appendix A.

4.29 Replace current VGA with HDMI, where appropriate.

4.30 Retain connectivity of the 42" flat panel displays in Room 320B and 320C to the television distribution system only.

4.31 Provide AV systems design and installation to include all devices, equipment, installation, programming and commissioning of the systems.

4.32 Implement the guidelines and requirements contained herein and translate them into a complete design package, containing all elements necessary for a complete, operational and functionally integrated AV system(s).

4.33 Provide all work as a turnkey installation including all material, labor, warranties, freight, permits and drawings. (Only items and requirements specifically stated to be provided by others shall not be a requirement.)

4.34 Provide an implementation schedule that limits disruption due to the critical nature of the emergency management facility. In order to reduce downtime, all equipment must be assembled and tested at the Contractor's facility. The Consultant will verify that all items are working as designed prior to final implementation. It is the Contractor's responsibility to notify the Owner and Consultant of the dates available for testing. Equipment will not be delivered to the City/ Owner prior to testing.

4.35 Provide project management to oversee and coordinate all activities and contractors to satisfy the successful implementation of all systems. The assigned Project Manager shall have a minimum of seven (7) years of experience related to Information Technology program and project management and a minimum of five (5) years of experience working on projects with a similar scope as described herein.

Roles and responsibilities include:

4.35.1 The Project Manager shall maintain the ability of making all managerial decisions on behalf of the Contractor on a day-to-day basis, and shall retain the authority of accepting notices of deduction, inspection reports, payment schedules and any other project-related correspondence.

4.35.2 The Project Manager shall schedule and attend project management meetings, during which time all system related issues are discussed, scheduled, confirmed, and/or resolved.

4.35.3 The Project Manager shall be available during normal business hours (0800 hours to 1700 hours) within two (2) hours by telephone during the term of the Project.

4.35.4 On a per room basis, and prior to the initiation of the work, the Project Manager shall submit a schedule reflecting key milestones of the work, including but not limited to the following:

- 4.35.4.1 Kick-off meeting
- 4.35.4.2 Prefabrication submittal
- 4.35.4.3 Ordering, delivery, and installation
- 4.35.4.4 Shop Fabrication
- 4.35.4.5 Shop Acceptance Testing
- 4.35.4.6 Equipment delivery to Site
- 4.35.4.7 Equipment schedule
- 4.35.4.8 Payment schedule

4.35.4.9 Site Installation Schedule inclusive of Hardware and Software
4.35.4.10 Systems training
4.35.4.11 Delivery of As-Built documentation
4.35.4.12 Delivery of Operations & Maintenance Manuals
4.35.4.13 Final System test
4.35.4.14 Acceptance of System

4.35.5 The Project Manager shall update the schedule on a weekly basis to reflect the status of each key milestone as the work progresses.

4.36 Coordinate and deliver complete and integrated as-builts, operation and maintenance manuals, and City training, including all professional produced materials and training videos.

4.37 Provide all programming code to the City in a format that is mutually agreed upon that can be updated and edited, as required.

4.38 Provide requirements gathering, design and programming work required for successful implementation of Control Systems Programming, User interfaces and monitoring server interfaces.

4.38.1 No less than (3) requirements gathering meetings with end users and other required stakeholders to develop a Basis of Design, to include, a minimum, three (3) concept designs for all programming and graphics components.
4.38.2 Once the Basis of Design is approved and the concept designs are chosen by the City, the contractor shall provide no less than six (6) review meetings to update the appropriate parties on progress of the programming and allow for changes to be requested.
4.38.3 Once the programming effort is substantially completed, the contractor shall provide a functional test to demonstrate the functionality of the systems. If the functional test does not meet the expectations of any of the parties, the contractor shall allow for one final substantial change to the programming.

4.39 Provide IP distribution and video wall processing.

4.39.1 While the Contractor may have internal personnel capable of installing and configuring the associated equipment, it is a requirement to utilize the manufacturer of the proposed systems as a subcontractor for their installation and configuration.
4.39.2 Work shall be completed in close coordination with the City and the AV Consultant.
4.39.3 The EOC video wall processor shall allow for at least 20 independent presets with the opportunity for COA/TC personnel to modify the presets and add new presets, as required.
4.39.3 The CTECC video wall processor shall allow for at least 60 independent presets with the opportunity for CTECC personnel to modify the presets and add new presets, as required.
4.39.4 The video wall processors shall be capable of active scalable windowing, which will allow advanced users and administrators the ability to actively resize the windows, as required.
4.39.5 Advanced users and administrators shall have the ability to start with a blank video wall image and add source material in drag/drop fashion. The settings shall be savable by the administrator.
4.39.6 Any video signal shall be capable of being sent to any/all displays throughout the facility.
4.39.7 The subcontractor (Manufacturer) shall provide approximately 30 days of onsite support post systems acceptance to assist the City with the takeover and operation of the systems. This shall include a minimum of eighty (80) hours of end-user training, including the required approximately forty (40) hours of City training inclusive of all

user or administrator levels required for operation and maintenance of the systems. This shall also include all required training materials and a professionally produced and edited video of all of the trainings for use by the City at their discretion. The Contractor shall provide the City with a consolidated training manual and video inclusive of all subcontractor trainings no later than ninety (90) days after successful completion of all trainings.

4.39.8 Training shall also include two (2) weeks of onsite configuration services for configuration changes, not including any additional hardware or licensing requests, identified and requested by the City approximately six (6) months from systems acceptance but at the convenience of the City.

4.40 Conduct a field survey of existing electrical infrastructure to include an accurate allowance for all required electrical work as part of this project.

4.41 Refer to the following standards for design and performance requirements related to the work:

- 4.41.1 InfoComm Dashboards for Controls
- 4.41.2 InfoComm 10-2013, AV Systems Performance Verification Standard
- 4.41.3 InfoComm 10-2013, AV Systems Performance Verification Guide
- 4.41.4 Underwriters Laboratories, Inc. (U.L.) Materials Construction Standards for safety standards

4.42 Install all equipment and cabling in accordance with the current national, state, and local codes and standards including, but not limited to the following:

- 4.42.1 Local governing authorities having jurisdiction
- 4.42.2 Any portion of the audiovisual work not subject to the requirements of an electrical code published by a specific authority having jurisdiction over such work shall be governed by the National Electrical Code and any and all applicable sections of the National Fire code, as published by the National Fire Protection Association (NFPA).
- 4.42.3 Installation procedures, methods and conditions shall be in compliance with the latest requirements of the Federal Occupational Safety and Health Administration (OSHA), the Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA).
- 4.42.4 The Contractor is responsible for all costs incurred to meet these codes and conditions.
- 4.42.5 Additional codes and requirements pertaining to the work:
  - 4.42.5.1 NFPA-72 National Fire Alarm and Signaling Code
  - 4.42.5.2 International and National Electric Codes (IEC/ NEC)
  - 4.42.5.3 IEC 60268-16 Third Edition 2003-05 Objective rating of speech intelligibility
  - 4.42.5.4 ANSI/InfoComm
    - 4.42.5.4.1 10:2013 Audiovisual Systems Performance Verification
    - 4.42.5.4.2 1M:2009 Audio Coverage Uniformity Standard in Enclosed Listener Areas
    - 4.42.5.4.3 2M:2010 Standard Guide for Audiovisual Systems Design and Coordination
    - 4.42.5.4.4 3M:2011 Projected Image System Contrast Ratio
    - 4.42.5.4.5 X3T9.5 FDDI
    - 4.42.5.4.6 X3T9.5 CDDI
  - 4.42.5.5 Sustainable Technology Environments Program
  - 4.42.5.6 Underwriters Laboratories, Inc. (UL)
  - 4.42.5.7 Society of Motion Picture and Television Engineers (SMPTE)
  - 4.42.5.8 Building Industry Consulting Service International (BICSI)
  - 4.42.5.9 Telecommunications Distribution Methods Manual - latest edition.

4.42.5.10 ANSI/TIA/EIA-568-B - Commercial Building Telecommunications Cabling Standard
4.42.5.11 ANSI/TIA/EIA-606-A. Administration Standard for Commercial Telecommunications Infrastructure
4.42.5.12 ANSI/TIA/EIA-569 - Commercial Building Standards for Telecommunications
4.42.5.13 Pathways and SpacesTIA-607-A, Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications
4.42.5.14 EIA RS-232 Serial Communications Electrical Interface
4.42.5.15 EIA RS-310-C Racks, Panels and Associated Equipment
4.42.5.16 FCC Part 15
4.42.5.17 FCC Part 68
4.42.5.18 IEEE 802.3
4.42.5.19 IEEE 802.5
4.42.5.20 Article 770 Optical Fiber Cables
4.42.5.21 Article 800 Communications Circuits
4.42.5.22 NFPA 70 National Electrical Code
4.42.5.23 NFPA 75 Protection of Electronic Computer / Data Processing Equipment
4.42.5.24 United States Green Building Council (USGBC): Leadership in Energy & Environmental Design (LEEDR): Green Building Rating System for New Construction & Major Renovations (NC) Version 3.0 (2009) www.usgbc.org.

4.43 Provide and maintain a storage facility. If the storage is to be onsite, the Contractor shall coordinate the size and spatial requirements with the City. The Contractor assumes full responsibility of the storage facility and all contents.

4.44 Procure and provide all required permits for any part of the Contractor work.

4.45 Create AutoCAD backgrounds for all required floor plans for the facility. All pre-fabrication, shop and record drawings required for the Project and as stated herein, shall be completed within the latest version of AutoCAD. Any changes shall be clouded or similarly highlighted for review.

4.46 Provide pre-fabrication submittals and shop drawings that include the following:

4.46.1 Detailed plan views and elevations of AV control and/or head-end rooms (in addition to relevant telecommunications rooms) showing raceway, sleeves, cable tray, cable paths, equipment racks, equipment cabinets, termination blocks, power receptacles and grounding bus bars.
4.46.2 Drawings to show evidence of coordination with other trades.
4.46.3 Cable run sheets denoting cable type, signal type, termination type, cable number designation, start point and end point.
4.46.4 Cable termination schedules showing cable transmission and device location. Provide schedules in printed and electronic format.
4.46.5 Floor plan drawings indicating device locations with device legends.
4.46.6 System riser diagram with all devices, wire runs, and wire designations.
4.46.7 Schematic block diagrams for each System showing all equipment, interconnects, data flow, etc.
4.46.8 Wiring diagrams for each subsystem defining the interconnection of all inputs and outputs for all equipment.
4.46.9 Fabrication shop drawings for all custom equipment (if applicable).
4.46.10 Plans and elevations of the audiovisual equipment racks quantifying all equipment to be mounted therein for review and approval by the City.

4.46.11 The Contractor shall submit samples of any equipment components upon request of the City.
4.46.12 Samples submitted shall be the latest version of equipment.
4.46.13 It is the responsibility of the Contractor to confirm all dimensions, quantities, and the coordination of materials and products supplied by the Contractor with other trades.
4.46.14 Approval of shop drawings containing errors does not relieve the Contractor from making corrections at their expense.

4.47 As part of installation, provide record documentation including the following:
4.47.1 Floor plan drawings indicating device locations, with device legends indicating manufacturers and model numbers for each device.
4.47.2 Floor plan drawings indicating wire routing, wire routing shall be delineated in straight line runs and be tagged with cable identification and terminal strip numbers to coincide with the installation.
4.47.3 Mounting details for all equipment and hardware.
4.47.4 Functional block diagrams for each subsystem.
4.47.5 Wiring details showing rack elevations, equipment wiring and terminations, and inter-rack wiring.
4.47.6 Wiring diagrams for all custom circuitry including interfaces to various control output controlled devices, lighting control interfaces, projection screens, operable window treatments, motorized doors/partitions, etc.
4.47.7 Wiring diagrams for each system, wiring diagrams shall be identical to those laminated and located within the door of the equipment room where the subject equipment racks are located.
4.47.8 Typical point-to-point wiring diagrams for each piece of equipment and groups of equipment within the system.
4.47.9 Layout details for each riser location, including audiovisual panels, power supplies, junction boxes, conduit, and any other audiovisual related equipment.
4.47.10 Operation and maintenance manuals
4.47.10.1 Bind each manual in a hard-back loose-leaf binder.
4.47.10.2 Identify each manual's contents on the cover.
4.47.10.3 Provide a table of contents and tabulated sheets for each manual. Place tab sheets at the beginning of each chapter or section and at the beginning of each appendix, if applicable.
4.47.10.4 Any hardware manual demonstrating more than one model number of device on any one page shall be clearly marked as to delineate which model has been implemented.
4.47.10.5 Include operational description of each subsystem, programming, explanation of subsystem interrelationships, electrical schematics, power-up and power-down procedures, menu tree for subsystems, list of manufacturers, their local representatives and subcontractors that performed work, installation and service manuals and maintenance schedules.
4.47.10.6 Include a software section for each software program incorporated to include: Definitions of all software related terms and functions, description of required sequences, directory of all disk files, description of all communications protocols, including data formats, command characters, and a sample of each type of data transfer, instructions for manufacturer supplied report generation, instructions for custom report generation, and database format and data entry requirements.

4.48 During installation, provide quality assurance to include the following:
4.48.1 The Contractor shall establish and/or maintain, a fully staffed office, including a service center capable of providing maintenance and service to the Project. The

Contractor shall staff the service center with factory trained technicians and adequately equip the office to provide emergency service 24 hours per day 7 days per week to be maintained through the life of the Service Contract.

4.48.2 The Contractor shall provide factory-certified technicians to install, commission, and maintain the work. All installing personnel shall be licensed as required by local and/or state jurisdictions.

4.48.3 The Contractor shall maintain an inventory of spare parts and other items critical to System operation and as necessary to meet the emergency service requirements of this Project.

4.49 Provide warranty and maintenance on the AV system to include the following:

4.49.1 A one (1) year warranty for all work, systems and subsystems against defects in materials and workmanship with optional costs for years two (2), three (3), four (4) and five (5). Include all equipment used in the system, even if previously installed and determined to be reused in this implementation.

4.49.2 Maintain certain manufacturer's warranties by adhering to requirements that system equipment must be installed, aligned and services by those installers recognized and authorized by said manufacturers to be capable of performing such duties. If a certain installer is not so authorized by a particular manufacturer, it is solely their responsibility to make such arrangements to come into such compliance and they shall bear all costs and consequences thereof.

4.49.3 The warranty shall be valid and initiated following the date of System acceptance by the AV Consultant and the City. System acceptance shall commence when all parts, components, sub-Systems, and Systems have been tested and are fully functional.

4.49.4 In the event that defects in the materials and/or workmanship are identified during the warranty period, the Contractor shall provide all labor and materials as may be required for prompt correction of the defect.

4.49.5 All manufacturers' equipment warranties shall be activated in the City's name and shall commence on the date of system acceptance. In the case of modified equipment, the manufacturer's warranty is normally Contractor voided. In such cases, the Contractor shall provide the User with a warranty equivalent to that of the original manufacturer.

4.49.6 All repairs required following substantial completion of the rooms shall be scheduled at the City's convenience. In no case will the City allow such repairs to interrupt or delay a regularly scheduled event. Notwithstanding the above, all repairs within the regular period of usage must be completed within 24 hours of notification of a failure; 2nd and /or 3rd shift warranty repair activity should be anticipated.

4.49.7 Provide written notice to the City documenting any work performed during the warranty period, including any preventative maintenance work performed.

4.49.8 Provide loaner equipment that is fully compatible with the Audio Visual Systems for any equipment not field repairable.

4.49.9 Loaner equipment for components that must be shipped to/from the manufacturer or distributor shall be on site and operational within 48 hours of the component failure. Furnish lists of equipment that will require shipment from the manufacturer or distributor and lead times associated with that equipment.

4.50 Offer an annual service and maintenance contract, covering all installed systems. The frequency of those visits, as identified and determined by the Contractor and their experience, shall be at regular intervals, in order to perform operational checks of the system(s) and equipment, to clean and service computers, tape machines, and other critical items, to lubricate moving parts as recommended by respective manufacturers and to adjust and align displays and other hardware to insure maintenance of optimum graphical performance. If the Contractor believes certain equipment may require more frequent (or less frequent) servicing that should be identified by component. The service contract shall commence immediately after expiration of the warranty period. A "per-component" price for the service contract shall be submitted with the Proposal. Provide a detailed plan for and

schedule for all suggested periodic maintenance with the Proposal and describe the potential impact of these tasks with the operation of the room.

4.51 Provide a Contractor system check list for acceptance testing purposes. Acceptance tests will not be performed until the test results have been reviewed. The acceptance tests will be supervised by the City and will include the AV Consultant and shall consist of the following:

4.51.1 Before the acceptance tests are scheduled, the Contractor shall perform their own system checkout based upon the InfoComm 10-2013, AV Systems Performance Verification Standard and Guide. The Contractor shall furnish all required test equipment. The Contractor shall submit a testing plan for approval at least 30 days prior to testing.
4.51.2 At the conclusion of the tests, the Contractor shall return all equipment settings to previously calibrated positions.
4.51.3 Provide written records of all test results in an Excel spreadsheet or other agreed upon format.
4.51.4 Establish and mark normal settings for all level controls, and record these settings in the "System Operation and Maintenance Manual".
4.51.5 Maintain documentation of all performance tests for the AV Consultant to reference during the system acceptance tests.
4.51.6 Provide a physical inventory list, including all equipment installed on site, with serial numbers.
4.51.7 Demonstrate the operation of all system equipment by the Contractor.
4.51.8 Provide subjective and objective tests to determine functionality.
4.51.9 All final, "as-built" drawings, run sheets, manuals, and other required documents, as detailed in Part I, shall be on hand. Two complete sets of these documents shall be delivered to the City at this time. (One complete set shall have been delivered to the City prior to the scheduling of acceptance tests).

4.52 Ensure that all primary and sub-contractors have the appropriate certifications to perform the associated job tasks and will pass an Austin Police Department (APD) Fingerprint based national Criminal Background Investigation (CBI). In addition, the contractor(s) shall sign the Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Security Addendum Certification and Texas Signatory Page, which will be provided by the City of Austin.

5.0 **Deliverables/Milestones**

Deliverables/Milestones	Description	Timeline (due/completion date, reference date, or frequency)	Performance Measure/ Acceptance Criteria	Contract Reference/ Section
Field Survey	Contractor and/or subcontractors on-site to review space, electrical, routing, grounding	Within 2 weeks of award	Provide field survey results and identify changes to current configuration, as	4.40

Deliverables/Milestones	Description	Timeline (due/completion date, reference date, or frequency)	Performance Measure/ Acceptance Criteria	Contract Reference/ Section
			needed. Approval by City.	
Evaluation of Current Systems	Contractor and/or subcontractors on-site to determine what equipment should be re-used	Within 4 weeks of award	Provide documentation regarding what can be re-used and in what location/Review with AV Consultant. Approval by City.	4.5
System design (25% Complete)	System design and engineering documents are at 25% complete	Within 10 weeks of award	Must include drawings and specifications for work/ Review will occur with AV Consultants to mitigate risks or design deficiencies. Approval by City.	4.31 4.32 4.45 4.46 4.47
System design (50% Complete)	System design and engineering documents are at 50% complete	Within 12 weeks of award	Must include drawings and specifications for work/ Review will occur with AV Consultants to mitigate risks or design deficiencies. Approval by City.	4.31 4.32 4.45 4.46 4.47
System design (75% Complete)	System design and engineering documents are at 75% complete	Within 14 weeks of award	Must include drawings and specifications for up to 75% of the work/ Review will occur with AV Consultants to mitigate risks or design deficiencies. Approval by City.	4.31 4.32 4.45 4.46 4.47
Installation Plan	Installation Plan for minimizing downtime during system installation and commissioning	Within 16 weeks	Plan shall include facility for staging and plan for how much set up and configuration will be done off-site, timelines will be set/Review with AV	1.1.9 4.34 4.35.4 4.35.5

Deliverables/Milestones	Description	Timeline (due/completion date, reference date, or frequency)	Performance Measure/ Acceptance Criteria	Contract Reference/ Section
			Consultants. Approval by City.	
System design (99% Complete)	System design and engineering documents are at 99% complete	Within 18 weeks of award	Must include drawings and specifications that includes almost all of the work that will be completed/ Review will occur with AV Consultants to mitigate risks or design deficiencies. Approval by City.	4.31 4.32 4.45 4.46 4.47
System Design complete	System design and engineering documents are complete; ready to begin work.	Within 20 weeks of award	System design and engineering documents reviewed and approved, ready for equipment/staging. Approval by City.	4.31 4.32 4.45 4.46 4.47
Hardware, Software, Cabling and Equipment Purchase	Procure all required hardware, software and equipment for system installation	Within 21 weeks of award	Complete bill of materials/Review with AV Consultants. Approval by City.	4.26 4.34 4.35.4
Staging of new equipment, hardware and software (off site per plan to minimize downtime in EOC and CTECC)	System is staged off site to validate functionality and configurations (per plan developed in Installation Plan)	Dependency on equipment lead time	Complete bill of materials received and powered on/Review with Consultants. Approval by City.	1.1.9 2.4.3 4.34 4.35.4
Basis of Design for Control System	Document developed from requirements sessions	TBD		4.22 4.24 4.38
Installation of new equipment, hardware and software	Perform installation of system hardware and software	TBD	Successful Completion of Acceptance testing	1.1.4 1.1.5 1.1.9 1.1.10 4.31 4.33 4.35.4 4.39.1 4.42

Deliverables/Milestones	Description	Timeline (due/completion date, reference date, or frequency)	Performance Measure/ Acceptance Criteria	Contract Reference/ Section
				4.47 4.48 4.51
Configuration of IP distribution and video wall processing		TBD		4.6 4.39
Removal of old equipment and cabling		TBD		4.4 4.5
Acceptance Testing	AV Consultant and City and Consultant participate in agreed upon test plans for sub-assemblies and entire system.	TBD	Passing of the agreed upon tests	3.9 4.35.4.5 4.35.4.13 4.35.4.14 4.51
Training	Interface and training materials for 3 levels of users; in-depth training for the video processing and administration and professionally produced videos.	TBD	Training completion, materials received and reviewed. Approval by City.	1.1.13 1.1.15 3.11 4.2 4.36 4.39.7 4.39.8
Final Documentation	Documentation includes control programming code, manuals, training materials, product documentation, manuals and as-builts.	TBD	All documentation received and reviewed. Approval by City.	1.1.6 1.1.14 4.35.4.11 4.35.4.12 4.45 4.46 4.47 4.51

Section 0605: Local Business Presence Identification

A firm (Offeror or Subcontractor) is considered to have a Local Business Presence if the firm is headquartered in the Austin Corporate City Limits, or has a branch office located in the Austin Corporate City Limits in operation for the last five (5) years, currently employs residents of the City of Austin, Texas, and will use employees that reside in the City of Austin, Texas, to support this Contract. The City defines headquarters as the administrative center where most of the important functions and full responsibility for managing and coordinating the business activities of the firm are located. The City defines branch office as a smaller, remotely located office that is separate from a firm's headquarters that offers the services requested and required under this solicitation.

OFFEROR MUST SUBMIT THE FOLLOWING INFORMATION FOR EACH LOCAL BUSINESS (INCLUDING THE OFFEROR, IF APPLICABLE) TO BE CONSIDERED FOR LOCAL PRESENCE.

NOTE: ALL FIRMS MUST BE IDENTIFIED ON THE MBE/WBE COMPLIANCE PLAN OR NO GOALS UTILIZATION PLAN (REFERENCE SECTION 0900).

USE ADDITIONAL PAGES AS NECESSARY

OFFEROR:

Name of Local Firm	Whitlock	
Physical Address	11100 Metric Boulevard, Suite 200E, Austin TX 75758	
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years?	Yes	No
Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

SUBCONTRACTOR(S):

Name of Local Firm	AWS Inc.	
Physical Address	4402 S. Congress Avenue, Suite 203, Austin TX 78745	
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years	Yes	No

Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

SUBCONTRACTOR(S):

Name of Local Firm	Onsite AV Service Partners, Inc.	
Physical Address	2120 W. Braker Lane, Suite K, Austin TX 78753	
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years	Yes	No
Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

SUBCONTRACTOR(S):

Name of Local Firm	ICS+	
Physical Address	5508 Highway 290 West, Suite 206, Austin TX 78735	
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years	Yes	No
Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

Section 0815: Living Wages Contractor Certification

Company Name Whitlock

Pursuant to the Living Wages provision (reference Section 0400, Supplemental Purchase Provisions) the Contractor is required to pay to all employees directly assigned to this City contract a minimum Living Wage equal to or greater than $13.50 per hour.

The below listed employees of the Contractor who are directly assigned to this contract are compensated at wage rates equal to or greater than $13.50 per hour.

Employee Name	Employee Job Title
Michael Bencivenga	Project Manager
Tyler Williams	Site Manager
JD Hearen	Lead Installer
Michael Bales	Quality Control/Staging Manager
Larry Fox	Quality Assurance Specialist

USE ADDITIONAL PAGES AS NECESSARY

(1) All future employees assigned to this Contract will be paid a minimum Living Wage equal to or greater than $13.50 per hour.

(2) Our firm will not retaliate against any employee claiming non-compliance with the Living Wage provision.

A Contractor who violates this Living Wage provision shall pay each affected employee the amount of the deficiency for each day the violation continues. Willful or repeated violations of the provision or fraudulent statements made on this certification may result in termination of this Contract for Cause and subject the firm to possible suspension or debarment, or result in legal action.

Section 0835: Non-Resident Bidder Provisions

Company Name Whitlock

A. Bidder must answer the following questions in accordance with Vernon's Texas Statues and Codes Annotated Government Code 2252.002, as amended:

Is the Bidder that is making and submitting this Bid a "Resident Bidder" or a "non-resident Bidder"?

Answer: Non-Resident

(1) Texas Resident Bidder- A Bidder whose principle place of business is in Texas and includes a Contractor whose ultimate parent company or majority owner has its principal place of business in Texas.
(2) Nonresident Bidder- A Bidder who is not a Texas Resident Bidder.

B. If the Bidder id a "Nonresident Bidder" does the state, in which the Nonresident Bidder's principal place of business is located, have a law requiring a Nonresident Bidder of that state to bid a certain amount or percentage under the Bid of a Resident Bidder of that state in order for the nonresident Bidder of that state to be awarded a Contract on such bid in said state?

Answer: No Which State: Virginia

C. If the answer to Question B is "yes", then what amount or percentage must a Texas Resident Bidder bid under the bid price of a Resident Bidder of that state in order to be awarded a Contract on such bid in said state?

Answer:

City of Austin, Texas
Section 0800
NON-DISCRIMINATION AND NON-RETALIATION CERTIFICATION

City of Austin, Texas

Equal Employment/Fair Housing Office

To: City of Austin, Texas,

I hereby certify that our firm complies with the Code of the City of Austin, Section 5-4-2 as reiterated below, and agrees:

(1) Not to engage in any discriminatory employment practice defined in this chapter.

(2) To take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without discrimination being practiced against them as defined in this chapter, including affirmative action relative to employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training or any other terms, conditions or privileges of employment.

(3) To post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Equal Employment/Fair Housing Office setting forth the provisions of this chapter.

(4) To state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will receive consideration for employment without regard to race, creed, color, religion, national origin, sexual orientation, gender identity, disability, sex or age.

(5) To obtain a written statement from any labor union or labor organization furnishing labor or service to Contractors in which said union or organization has agreed not to engage in any discriminatory employment practices as defined in this chapter and to take affirmative action to implement policies and provisions of this chapter.

(6) To cooperate fully with City and the Equal Employment/Fair Housing Office in connection with any investigation or conciliation effort of the Equal Employment/Fair Housing Office to ensure that the purpose of the provisions against discriminatory employment practices are being carried out.

(7) To require of all subcontractors having 15 or more employees who hold any subcontract providing for the expenditure of $2,000 or more in connection with any contract with the City subject to the terms of this chapter that they do not engage in any discriminatory employment practice as defined in this chapter

For the purposes of this Offer and any resulting Contract, Contractor adopts the provisions of the City's Minimum Standard Non-Discrimination and Non-Retaliation Policy set forth below.

City of Austin
Minimum Standard Non-Discrimination and Non-Retaliation in Employment Policy

As an Equal Employment Opportunity (EEO) employer, the Contractor will conduct its personnel activities in accordance with established federal, state and local EEO laws and regulations.

The Contractor will not discriminate against any applicant or employee based on race, creed, color, national origin, sex, age, religion, veteran status, gender identity, disability, or sexual orientation. This policy covers all aspects of employment, including hiring, placement, upgrading, transfer, demotion, recruitment, recruitment advertising, selection for training and apprenticeship, rates of pay or other forms of compensation, and layoff or termination.

The Contractor agrees to prohibit retaliation, discharge or otherwise discrimination against any employee or applicant for employment who has inquired about, discussed or disclosed their compensation.

Further, employees who experience discrimination, sexual harassment, or another form of harassment should immediately report it to their supervisor. If this is not a suitable avenue for addressing their complaint, employees are advised to contact another member of management or their human resources representative. No employee shall be discriminated against, harassed, intimidated, nor suffer any reprisal as a result of reporting a violation of

this policy. Furthermore, any employee, supervisor, or manager who becomes aware of any such discrimination or harassment should immediately report it to executive management or the human resources office to ensure that such conduct does not continue.

Contractor agrees that to the extent of any inconsistency, omission, or conflict with its current non-discrimination and non-retaliation employment policy, the Contractor has expressly adopted the provisions of the City's Minimum Non-Discrimination Policy contained in Section 5-4-2 of the City Code and set forth above, as the Contractor's Non-Discrimination Policy or as an amendment to such Policy and such provisions are intended to not only supplement the Contractor's policy, but will also supersede the Contractor's policy to the extent of any conflict.

UPON CONTRACT AWARD, THE CONTRACTOR SHALL PROVIDE THE CITY A COPY OF THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICIES ON COMPANY LETTERHEAD, WHICH CONFORMS IN FORM, SCOPE, AND CONTENT TO THE CITY'S MINIMUM NON-DISCRIMINATION AND NON-RETALIATION POLICIES, AS SET FORTH HEREIN, OR THIS NON-DISCRIMINATION AND NON-RETALIATION POLICY, WHICH HAS BEEN ADOPTED BY THE CONTRACTOR FOR ALL PURPOSES WILL BE CONSIDERED THE CONTRACTOR'S NON-DISCRIMINATION AND NON-RETALIATION POLICY WITHOUT THE REQUIREMENT OF A SEPARATE SUBMITTAL.

Sanctions:

Our firm understands that non-compliance with Chapter 5-4 and the City's Non-Retaliation Policy may result in sanctions, including termination of the contract and suspension or debarment from participation in future City contracts until deemed compliant with the requirements of Chapter 5-4 and the Non-Retaliation Policy.

Term:

The Contractor agrees that this Section 0800 Non-Discrimination and Non-Retaliation Certificate of the Contractor's separate conforming policy, which the Contractor has executed and filed with the City, will remain in force and effect for one year from the date of filing. The Contractor further agrees that, in consideration of the receipt of continued Contract payment, the Contractor's Non-Discrimination and Non-Retaliation Policy will automatically renew from year-to-year for the term of the underlying Contract.

Dated this 23rd day of March .

CONTRACTOR Craig Orris Taylor, Whitlock

Authorized Signature

Title Senior Account Executive

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 1** **Date of Addendum: 02/27/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. PROPOSAL and COMPLIANCE PLAN DUE PRIOR TO: 03/24/17, 2:00 pm, local time has been changed to:
PROPOSAL and COMPLIANCE PLAN DUE PRIOR TO: 03/23/17, 2:00 pm, local time

   PROPOSAL OPENING TIME AND DATE: 03/24/17, 2:15 pm, local time has been changed to:
PROPOSAL OPENING TIME AND DATE: 03/24/17, 2:15 pm, local time

2. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 02/27/2017
Sai Xoomsai Purcell, Senior Buyer Specialist Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock _____ March 23, 2017
Name Authorized Signature Date

RETURN ONE COPY OF THIS ADDENDUM TO THE PURCHASING OFFICE, CITY OF AUSTIN, WITH YOUR RESPONSE OR PRIOR TO THE SOLICIATION CLOSING DATE. FAILURE TO DO SO MAY CONSTITUTE GROUNDS FOR REJECTION.

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 2** **Date of Addendum: 03/02/2017**

This addendum is to incorporate the following changes to the above referenced solicitation:

1. **Compliance Plan Package has been added to the above referenced solicitation.**

2. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/02/2017
Sal Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock — _____ — March 23, 2017
Name — Authorized Signature — Date

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ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 3** **Date of Addendum: 03/09/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Attached are the following documents for Reference Only to the solicitation package:
   - Combined Transportation, Emergency & Communications Center Floor Plan
   - Upcoming Emergency Operations Center Layout

2. **Q)** Section 0500 Scope of Work, page 1, item 1.2 indicates "The City will not provide the current set system design, facilities detail sheets, electrical drawings and detailed equipment list." Page 2, item 2.2 indicates, "it is the Contractor's responsibility to take into account existing infrastructure items that might be reused or repurposed, without degrading or impacting the new systems, for a cost-effective solution." To assist with a more accurate pricing, will the City be able to release these back up information?
   A) The City will not be able to release this information. Proposers must include contingency costs for these items.

3. **Q)** Can the City provide manufacturer and model numbers of all existing equipment for locations listed under Section 0500 Scope of Work, page 8, item 4.6?
   A) The City will not be able to provide the requested information.

4. **Q)** Section 0500, Scope of Work page 8, 4.6, please provide list and locations of all equipment and materials to be removed and the distances and access capabilities from existing locations to storage or egress of facility.
   A) This solicitation is a design and build. The City expects the selected vendor to evaluate the existing equipment and develop the as-built drawings.

5. **Q)** Section 0500, Scope of Work page 6, item 2.9. How will the proposed screen be attached to the structure?
   A) It is up to the proposer to determine and propose how the screen will be attached to the structure.

6. **Q)** Section 0500, Scope of Work page 9, item 4.9, can the City confirm manufacturer and model(s) along with mounting details and drawings for the requested ten (10) flat panel mount(s)?
   A) It is up to the proposers to indicate the manufacturer and models along with mounting details and drawings as part of their design.

7. **Q)** Section 0500, Scope of Work page 9, 4.21, where will the eight (8) new digital wireless microphones be located and to what system will they be attached?
   A) These will be located in the Austin/Travis County Emergency Operations Center (A/TCEOC). Audio will need to have the capability to be heard within the A/TCEOC and connect inputs to the following ancillary rooms: Room 320 B, Room 320 C and Room 317.

8. **Q)** Section 0500, Scope of Work page 13, item 4.42.3, can City confirm the standard for Americans with Disabilities Act?
   A) The proposers will need to take into consideration the compliance standards listed in 4.42.3 in their final design.

9. **Q)** Scope of Work page 4, 2.4.3.1, indicates there is room for four (4) equipment enclosures (racks), page 6, 2.8 indicates space for three (3). Please confirm space available for rack size and quantity.
   A) Three spaces are correct for the new space. However, most of the equipment should be located in the data center on the first floor.

10. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/09/2017
Sai Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock — _____ — March 23, 2017
Name — Authorized Signature — Date

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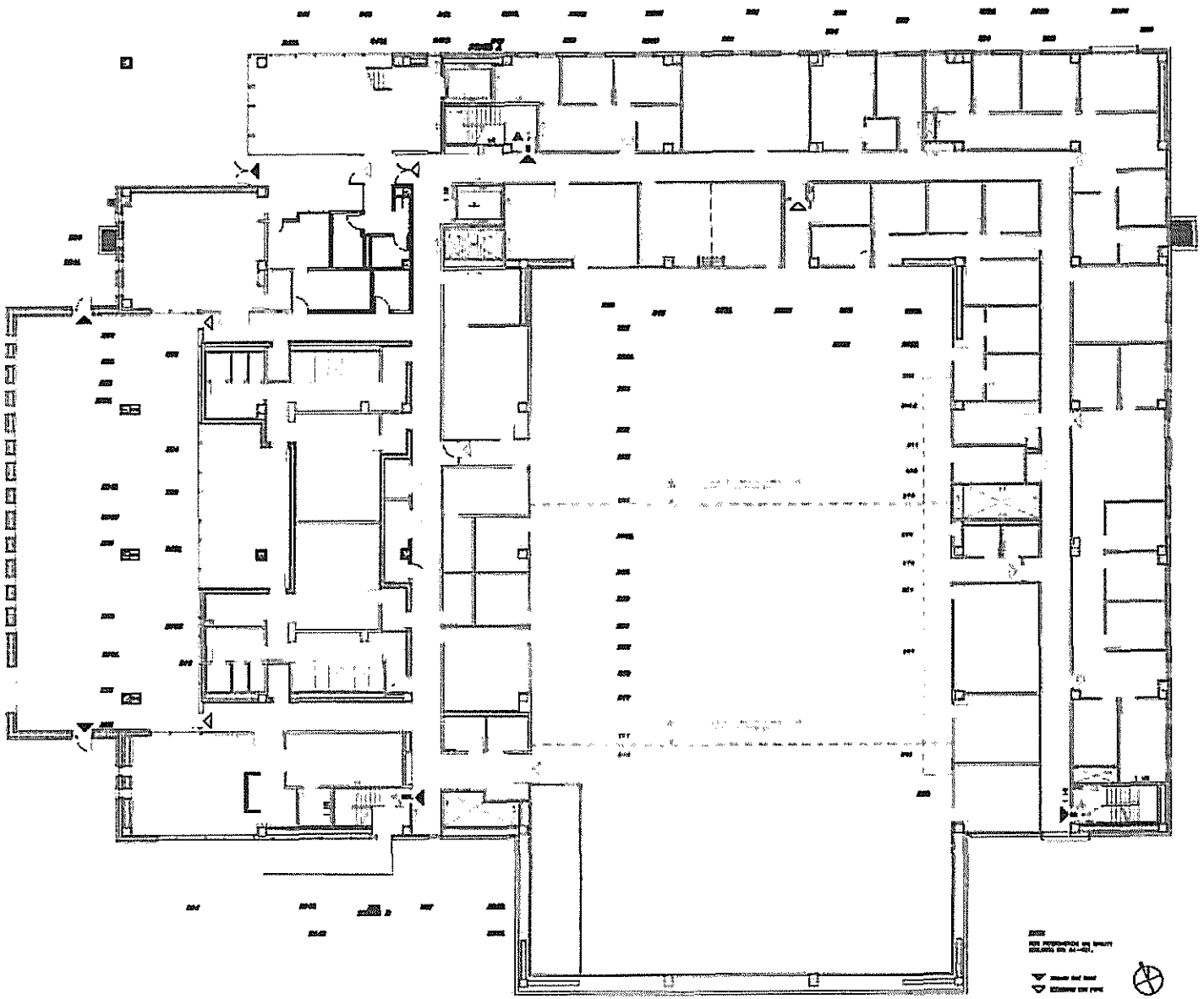
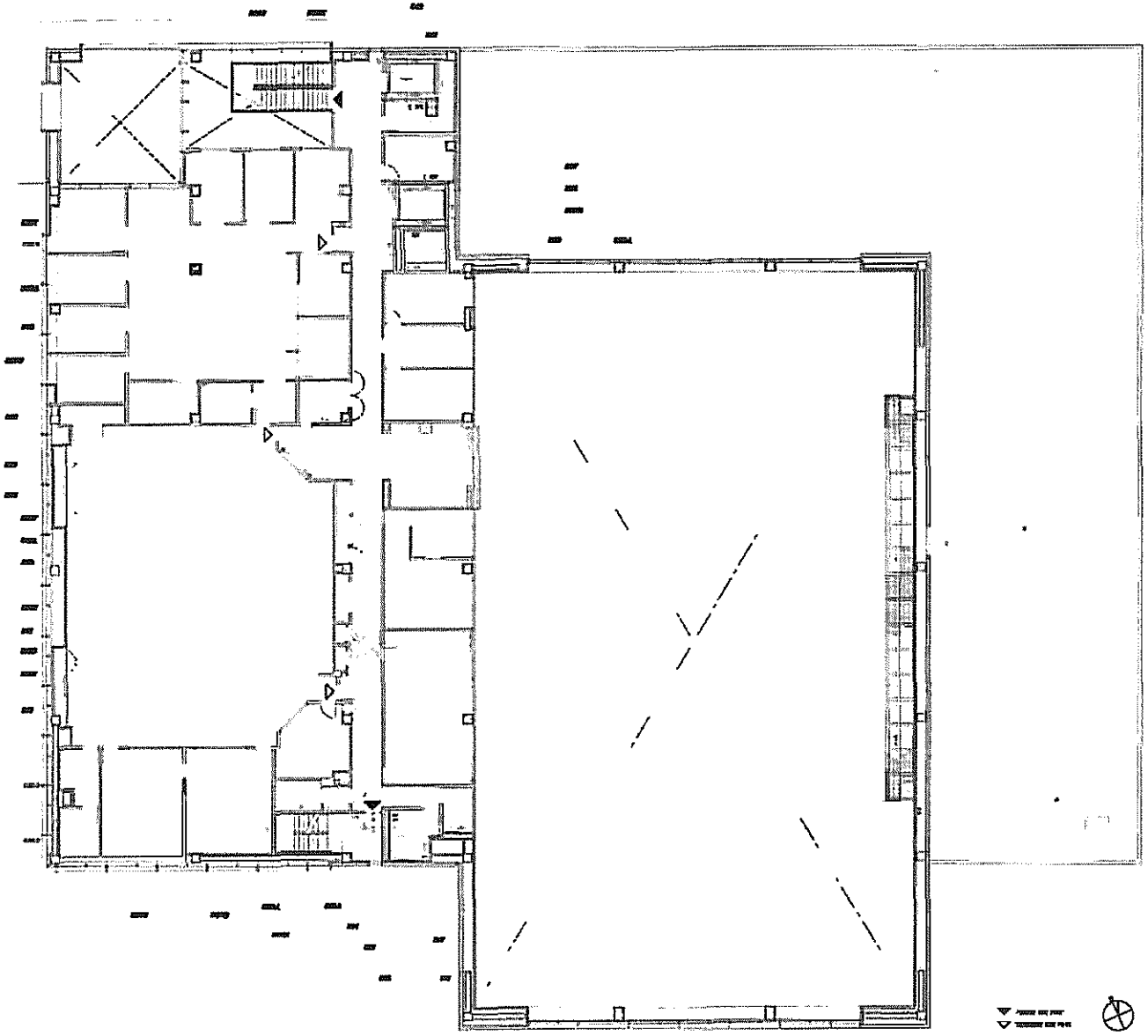


A2 EXITING PLAN – ENTRY LEVEL

DMJM

LIFE SAFETY EXITING PLANS
ENTRY LEVEL

A0–204

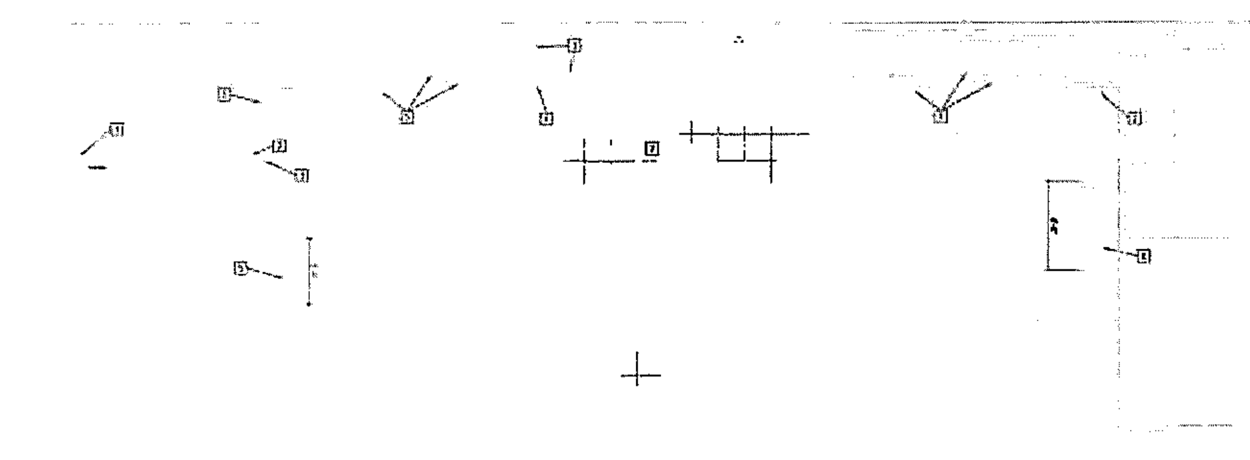


A2 | EXITING PLAN – UPPER LEVEL

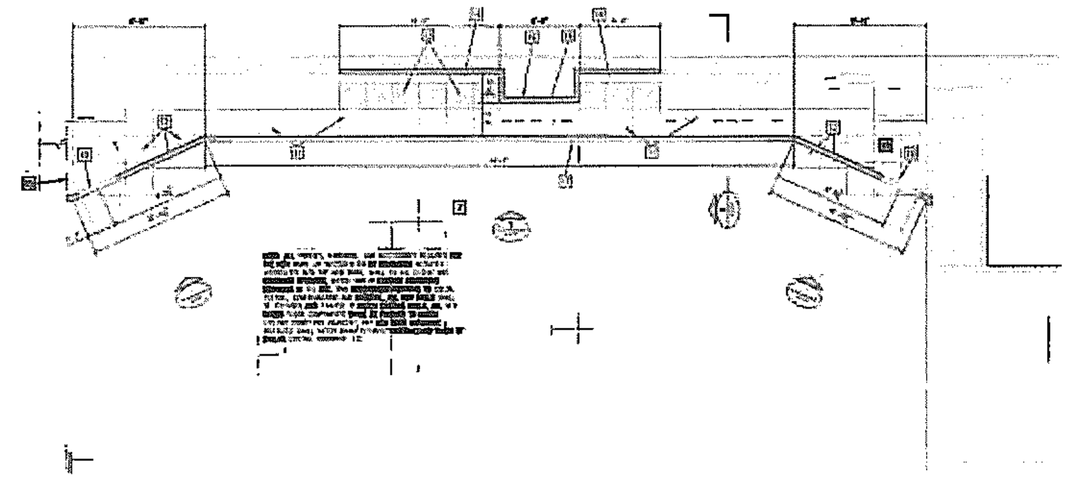
DMJM

LIFE SAFETY EXITING PLAN
UPPER LEVEL

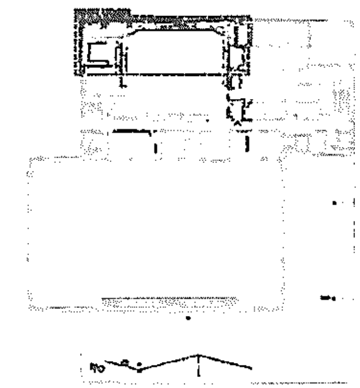
A0–205



1 DEMOLITION FLOOR PLAN



2 PROPOSED FLOOR PLAN



mwm DesignGroup

EXISTING AND PROPOSED FLOOR PLANS

COMBINED TRANSPORTATION, EMERGENCY, AND COMMUNICATIONS CENTER
AUSTIN ENERGY EOC VIDEO WALL IMPROVEMENTS

A100

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 5** **Date of Addendum: 03/09/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Section 0400, Supplemental Purchase Provisions, item 3.A has been deleted in its entirety and replaced with the following:

   The Contract shall remain in effect until the earliest of when the deliverables set forth in the Scope of Work including the final acceptance of the product are complete. The contract may be extended thereafter for up to six (6) additional 12-month periods for the full systems warranty and service, subject to the approval of the Contractor and the City Purchasing Officer or his designee.

2. Q) What is the required number of hard copies and electronic copies that need to be submitted proposal?
   A) Submit **one** original paper copy and an electronic copy of the original response in PDF on **nine (9) separate flash drives.**

3. Q) What is the specifics of the existing Ethernet network considering total and backplane bandwidth, edge switching capabilities, routing, etc.?
   A) The existing Ethernet network provides 1G to the desktops.

4. Q) Section 0500, Scope of Work page 6, item 2.7 and page 8, item 4.3, can the City provide the specifics of the existing/future WAN network considering total and backplane bandwidth, edge switching capabilities, routing, etc.?
   A) There is currently no AV network in place today. As part of their design, the selected vendor will need to indicate the requirements for the new installation.

5. Q) What are the existing video cube display model number(s), native resolution and input connectivity?
   A) The existing sixty (60) display cubes in the CTECC are installed as one forty eight (48) cube array, plus three separate 4 cube arrays. The existing display cube projector engines are the Mitsubishi VS-XE73RU, XGA resolution, LED illuminated Projection Engines. In addition, see attached document on Mitsubishi 70 product information.

6. Q) What is the distance from the video cube displays to the EOC AV storage room?
   A) Less than 300 feet.

7. Q) What is the City furnished laptop manufacturer and model numbers, operating system version & preferred web browser?
   A) For the last three years, the City laptops are Dell Latitude. The operating system is Windows 7 with a migration to Windows 10. The preferred web browsers are Chrome or Internet Explorer.

8. Q) What is the City furnished PC desktop manufacturer and model numbers, operating system version & preferred web browser?
   A) For the last three years, the City desktop manufacturer and models are Dell Optiplex. The operating system is Windows 7 with a migration to Windows 10. The preferred web browsers are Chrome or Internet Explorer.

9. Q) Section 0500, Scope of Work page 9, item 4.15, please provide specifics for the CTECC current cable management practices.

A) The City has standardized on Panduit for cabling on the network. Also, current industry standards for Category 6 cabling.

10. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/09/2017
Sai Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock — _____ — March 23, 2017
Name — Authorized Signature — Date

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ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 5** **Date of Addendum: 03/09/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Q) Where is the period of performance identified?
   A) Deliverables and milestones can be found in Section 0500, Scope of Work, in 5.0, the deliverable and milestones section of the RFP. This period of performance is tentative and will be finalized during contract negotiations with the selected vendor.

2. Q) Where are the evaluation criteria for the RFP located?
   A) Section 0600, Proposal Preparation Instructions and Evaluation Factors, number 4, on page 7.

3. Q) Who is responsible to evaluate what is an equivalent equipment?
   A) The City of Austin evaluation team.

4. Q) If a vendor proposes equivalent equipment, when will the proposer know that their equipment is accepted?
   A) There are only four instances of equal equipment that are sited in the RFP.
   a. Barco Master Quote or approved equal. Approved equals for Barco video systems are Christie and SVSI.
   b. Barco Clickshare or approved equal.
   c. Cisco or approved equal for video conferencing.
   d. Panduit cabling or approved equal.

   If the proposer wants to provide a bid for approved equal equipment, please contact the manufacturer chosen and use Appendix B, Inputs and Outputs, to obtain a Master Quote.

   If the proposers have alternative equipment proposed for any of these systems not named above, please provide the information on the equipment proposed no later than Friday, 03/10/2017. A determination will be provided no later than end of day on Tuesday, 3/14/2017.

5. Q) Please explain the pathways for cabling?
   A) Most of the pathways are under raised floor with access from the second floor and the third floor to the first floor data center. The RFP has the specifications for the cable.

6. Q) Is there Ethernet with minimal coax, or what is the set up?
   A) There is a lot of coax. As far as pricing is concerned, please look at Appendix B for the inputs and outputs and assume all will need to be both encoded and decoded.

7. Q) Can proposer request an interview with City to define requirements?
   A) No. Please see Section 0500, Scope of Work for the solicitation requirements.

8. Q) If a specific manufacturer for a product is not listed, can the proposer submit what they recommend as part of the design?
   A) Proposers should submit their design and the equipment they think best meets the needs of the City. If a manufacturer is proposed, an approved equal can be submitted by 03/10/2017 for a determination.

9. Q) Will all new data be required to run to the devices (workstations) for video sharing?

A) Data cabling will need to be run to support the encoding. There is existing cable for the devices, but not for the transport.

10. Q) If there are items with specifications, but they are not brand specific with an option for approved equal, do these items need to be submitted for approval?
A) No, items such as projectors, digital signal processors, etc., just need to meet minimum specifications.

11. Q) How many encoders and decoders are needed?
A) Proposers need to determine the total number needed based on Appendix B Inputs/Outputs matrix and their proposed design.

12. Q) Can the City clarify requirement 4.39.7 to indicate the number of days a manufacturer needs to be on site, or just available?
A) The subcontractor (Manufacturer) shall provide approximately 30 days of remote support post systems acceptance to assist the City with the takeover and operation of the system.

13. Q) Can the City also clarify requirement 4.49.8?
A) Configuration services can take place remotely for configuration changes requested by the City.

14. Q) For the control system software programming, are the proposers getting costs for system programming from the two identified subcontractors?
A) Yes, each proposers needs to determine if they will contact one or both of the programming subcontractors to provide costs for the control devices and the graphic user interface (GUI). The costs will be based on the proposer's design. The chosen programming group would be a subcontractor to the contractor and would need to be registered with the City on the Vendor Connection website.

15. Q) In Appendix A, Price Proposal Form, who will confirm the master quote?
A) Proposers should contact their selected manufacturer to obtain a master quote for their design.

16. Q) Is the list of video inputs and outputs as provided in Appendix B the most current list?
A) Yes

17. Q) For SMBR, does the percentage reflect an amount of the bottom line of the bid?
A) Yes, it is the base bid plus the optional equipment. The total bottom line is the number to use to reflect the MBE/WBE percentage.

18. Q) Are there two different goals, one for the MWE and one for the WBE?
A) Yes, if a firm is both, they cannot count towards both of the MWE and WBE goals. They can only be counted towards one or the other and not both.

19. Q) When is a good faith effort required?
A) The intent is to meet both the WBE (0.94%) and MBE (1.85%) goals. Good faith effort is required if one or both cannot be met. The proposer can contact SMBR with specific questions regarding meeting the goals.

20. Q) If staff members already have City security clearances, will they count for the CTECC clearances?
A) All unescorted staff members will be required to go through the national fingerprint background check called the Fingerprint Applicant Services of Texas (FAST) Pass. If an individual has already been through the FAST process, only the tracking number is required for verification purposes. The City will not provide escorts for vendor staff that do not pass the fingerprint background check.

21. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/09/2017
Sai Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock
Name

Authorized Signature

March 23, 2017
Date

RETURN ONE COPY OF THIS ADDENDUM TO THE PURCHASING OFFICE, CITY OF AUSTIN, WITH YOUR RESPONSE OR PRIOR TO THE SOLICIATION CLOSING DATE. FAILURE TO DO SO MAY CONSTITUTE GROUNDS FOR REJECTION.

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 6** **Date of Addendum: 03/13/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Q) Will the Jupiter Catalyst and Jupiter Canvas IP Based Video Distribution and Video wall System solution be accepted as an approved equal to the specified Barco IP Based Video Distribution and Video wall Processing System?
   A) This alternate is approved; however, please note that the system must fully comply with design intent as outlined in the RFP. Any variations, advantages, or shortcomings shall be clearly noted in the response.

2. Q) Will Polycom be accepted as an approved equal to Cisco for the Video Conferencing Codec, Video Conferencing Cameras, Multisite Software, and Video Content Sharing Software?
   A) This is an approved manufacture; however, please note that the specific model number and configuration of a particular device selected by the vendor may not meet the criteria as established within the specifications. The specified model numbers shall be included in the price proposal.

3. Q) In Section 0500, Scope of Work, page 10 of 21, 4.24, the specification calls out control of existing lighting system. Please provide manufacturer of existing lighting system, and please specify desired zones and presets to be provided in control of this existing lighting system.
   A) The existing lighting system is Lutron with RS-232 control located on level 3 in the AV equipment room. There are five (5) presets. The controls shall be extended to the new AV rack room location.

4. Q) Section 0500, Scope of Work, page 4 of 21, 2.4.4.1.1, the specification calls out separate line item pricing for a laser phosphor projector with at least 3500 ANSI lumens and 1920x1080 resolution for Rooms 317, 320B and 320C. The Base Bid Pricing Proposal for these three rooms requests that the existing projectors from the EOC be installed in these rooms, so this separate line item pricing would be provided on the Optional Equipment section of the Pricing Proposal. However, the Optional Equipment Section of the Pricing Proposal currently calls out for quantity three (3) 6000 ANSI Lumens 1080p Laser Phosphor projectors. Which of these is correct, 3500 or 6000?
   A) The 3500 ANSI are existing and may be reused. Please provide optional pricing for other lumen levels for price/value consideration.

5. Q) Section 0500, Scope of Work, page 9 of 21, 4.9, the specification calls for the Vendor to provide Ten (10) 65" nominal LED flat Panel displays suitable for use in a 24-7 environment, with 1080p minimum resolution. However, the Base Bid Pricing Spreadsheet form the EOC Room 320 does not request pricing for these displays, though it does have line items for quantity 10 flat panel interface brackets, and specifies that quantity ten flat panel-ceiling mounts are existing. Does the City of Austin need to issue a revised pricing spreadsheet to include these ten 65" displays in the Base Bid Pricing Spreadsheet for EOC Room 320?
   A) The existing displays may be reused. Please price optional twelve (12) 65" for Owner consideration. Ten (10) would flank the room and two (2) would be mounted on the angled walls in the front of the room.

6. Q) In Section 0500, Scope of Work, page 5 of 21, item 2.5.1.5, the specification states that there is a "Podium with a/v and presentation preview and control". Will this existing podium be reused in the EOC Room 320 or some other room? If it is to be reused, please specify locations where this podium is to be connected, and specify what connectivity for this podium at each connection location is to be provided.
   A) The existing podium with A/V and presentation preview and control is in room 317. This lectern will be reused by the City, however, it will need new connectivity and equipment to support it the control system.

7. Q) Section 0500, Scope of Work, page 10 of 21, item 4.20, the specification calls out for a personal audio system per users station. What is the quantity of users' stations to receive personal audio systems?
   A) The specification requires streamed audio and video to workstations for listening purposes, users should be able to select and monitor audio from software, integrated with switching system. Provide for 115 users in CTECC and 60 users in EOC, at a minimum.

8. Q) In Section 0500, Scope of Work, page 4 of 21, item 2.4.1.3.5.4, there is a requirement that "All operator workstations shall be equipped with appropriate software to enable operators to selectively listen to audio content via user supplied headphones." Neither the Base Bid pricing spreadsheet nor the OPTIONAL PRICING Spreadsheet have line items requesting this pricing. Will the City issue revised Pricing Spreadsheets that have space for pricing this item?
   A) Refer to the Barco master quote referenced in the specification. Audio software was specified and included. When requesting a master quote, this requirement should be included. If it is not, the respondent may add a line under Audio Systems and indicate the software and price associated.

9. Q) On the Summary Sheet of the Pricing Proposal Excel Spreadsheet, there are the following items listed in Column B, rows 13-22: What is the City asking for in response to these items 13-22? Is the City asking for an hourly rate for each type of response? Or is there not a pricing response requested on the Summary Sheet for these items 13-22? Is this simply a verbal description of the AV Warranty SLA, Year One of which is to be included in our Base Bid, and Years Two through Six to be included in our Optional Equipment?

13		Critical (Emergency) response: 24x7 service, qualified technician on-site within 4 hours
14		Normal business hours
15		Off peak hours.
16		Provide maintenance and support agreement to include equipment replacement language
17		Critical (Emergency) after hours – requires call back within 60 minutes of contact.
18		Critical Priority response – Engagement with CTECC support within 30 minutes of notification.
19		Urgent Priority response – Engagement with CTECC support within 2 hours of notification.
20		High Priority response – Engagement within 24 hours of notification.
21		Medium Priority response – Engagement within 48 hours of notification.
22		Low Priority response – Engagement within 5 days of notification.

   A) The City is requesting hourly rates for items 13-22 for future budgeting. The year one warranty shall be included in base pricing. The warranty for years 2 – 6 are optional, however, the City needs costs submitted to anticipate the total contract cost.

10. Q) In Section 0500, Scope of Work, page 4 of 21, item 2.4.5.2.2, the specification states: "Line item pricing shall be provided for additional system inputs and outputs. These may be used for additional inputs and outputs to send video to and from other agencies around the City of Austin/Travis County areas." There is no line item on the Optional Equipment tab of the Pricing Spreadsheet for these additional system inputs and outputs. Will the City of Austin issue a new Pricing Spreadsheet with line items on the Optional Equipment tab where vendors can place this pricing?
    A) The unit cost provided in rooms 320B & C will meet this requirement.

11. Q) In Section 0500, Scope of Work, page 12 of 21, item 4.39.7, Addendum 4, question 12, where the City clarifies that the manufacturer shall provide approximately 30 days of remote support post systems acceptance to assist the City with the takeover and operation of the system. Also in item 4.39.7, there is the requirement that states: "This shall include a minimum of 80 hours of end-user training, including the required approximately 40 hours of City training". Are these 80 hours of end-user training by manufacturer to be conducted using REMOTE SUPPORT, or are these 80 hours of end-user training by manufacturer to be conducted ONSITE?
    A) The City requires 80 hours of training on-site or the fully funded cost for off-site training at manufacturer's facility.

12. Q) In Pricing Spreadsheet for EOC Room 320, specification calls for quantity four of "Data/Video 1080P 3-Chip DLP projector, 14,000 Lumens". In Appendix C, Technical General Requirements, item 007 specifies a 13,000 Lumens projector 1920x1080, contrast 50,000:1, Laser Phosphor, with light source lifetime of 20,000 hours. Item 035 in same document lists the Laser Phosphor Hybrid projector with at least 13,000 ANSI lumens and 1920x1080P resolution. Two questions: 1. Should projector in BASE BID be 14,000 or 13,000 ANSI Lumens? 2. Should projector be three chip DLP?
    A) The specification request pricing for projectors at various lumen levels for Owner consideration for initial or future upgrade. Base bid pricing should be 14,000 lumen projector.

13. Q) How is the pricing sheet to be filled in to reflect the pricing for data cabling installation that the City might provide or is the city only providing the data cabling. Clarify if the city is providing, installing and terminating and testing the cabling and how to reflect in the pricing sheet submittal.
    A) There is a line item for each room in Appendix A- Price Proposal Form to indicate the infrastructure cable costs. The City reserves the right to purchase the cabling needed for the project through the winning proposer or separately.

14. Q) Clickshare's are marked as future in RFP 2.5.2.3, 2.5.3.3 & 2.5.4.3. Do these need to be included in the bid?
    A) The units do not exist, but they are part of the project. These units need to be included in base bid.

15. Q) Specify what spare equipment is required. Provide additional details on RFP section 4.48.3 - what are the emergency service requirements?
    A) Based on the proposed design, each proposer should determine what inventory of spare parts needs to be held in reserve to meet the stated service levels requested.

16. Q) Do the new Cameras need to be provided with the new codec or can the old one be re-used?
    A) Yes. The new cameras compatible with new codec will need to be provided.

17. Q) How many press audio and video connections are needed?
    A) The City is requesting two (2) audio and two (2) video connections for feeds from the EOC Operations floor.

18. Q) Can the City confirm the bidder will not replace the room 317 and 320 lectern?
    A) The City will reuse this lectern, but it will need new connectivity and equipment.

19. Q) Can the City confirm that the customer will provide all needed network switches?
    A) Based on the proposed design, each proposer should recommend the network needed to support their solution. There is no AV network at this time.

20. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/13/2017

Sai Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor , Whitlock — Authorized Signature — March 23, 2017

Name — Date

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ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 7** **Date of Addendum: 03/13/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Q) Section 0500 lists four document cameras in section 2.5.1.12, Appendix A lists 3. How many document cameras are needed?
   A) Proposer should use higher number when conflicts exist in documents to insure a fully functional system.

2. Q) Can the City describe the intent for the EOC rack mount touch panel called out in Appendix A.
   A) This rack panel will be a back up to the main EOC control panel for technical use and troubleshooting.

3. Q) Section 0500, Scope of Work, item 2.4.5.1.1 lists optional 3500 lumen projectors, but appendix A calls out 6000 lumen projectors. Please clarify what brightness is desired.
   A) The 3500 lumen projectors are existing, 6000 lumen are optional.

4. Q) Is Barco video distribution to SVSI N3000 series or Christie Phoenix a possible alternative?
   A) Alternate approved with note that system must fully comply with design intent as outlined in the Section 0500, Scope of Work. Any variations, advantages, or shortcomings shall be clearly noted in response.

5. Q) Is an alternate for Cisco codec approved for Polycom or Lifesize codec?
   A) Polycom and Lifesize are approved alternates.

6. Q) Can a single channel wireless mic receiver be substituted for a dual channel receiver?
   A) Single channel is approved alternate.

7. Q) Would the City consider Stewart projection screen approved alternate to Screen Innovations (SI) screen?
   A) Screen Innovations (SI) is an approved alternate provided that supplied screen meets or exceeds specifications of specified Stewart model.

8. Q) Would City consider Panduit wire to West Penn or Belden wire?
   A) Panduit wire is the City standard.

9. Q) Would the City consider Barco CSC-1 Clickshare to Barco CSE-200 Clickshare for rooms 320B, 320C & 317?
   A) Barco CSE-200 Clickshare is an approved alternate model for rooms 320B, 320C and 317.

10. Q) How many users/operators in CTECC and Rooms 317, 320B, 320C require the ability to preview sources and control through the content management software? The only room that specified this ability is the EOC.
    A) It is anticipated that there will be four on the (4) CTECC Operations floor, one (1) in EOC 320, one (1) in Rm. 320 B, one (1) in Rm. 320C, and one (1) in Rm. 317.

11. Q) In regards to the control touch panel, please specify if each room needs the ability to select any source that is available in the audio/video distribution system or should it only have access to the sources located within the room, along with the option to select a shared source from another room. Note: there's a total of 81 sources and the touch panels specified are 7" and 10" models.
    A) The control panels provide audiovisual control such as display or projector on/off, microphone levels, video conference dialing and camera control that are not provided by the workstation software paired to the IP video switcher. The EOC room and room 317 should be able to access the sources within the room, with the option to select a shared source from another room.

12. Q) In looking at the RFP Evaluation it appears the point system has changed. A total of 10 points has been moved from Understanding System Requirements and Past Performance and added them to Total Evaluated Price. In addition, the potential points allocated for the interview process were removed all together. Can you please provide some clarification as to why these changes were made?
    A) This is a new RFP and the associated evaluation criteria published in this RFP will be used.

13. Q) What is the make/model of the transmitter/receiver that is extending video to each of the (60) LED cubes in 911 operations?
    A) See the attachment Mitsubishi 70 Series Input Boards document.

14. Q) How far approximately in feet is the conduit that connect the EOC to the IT datacenter to the (3) full rack spaces that are available for a major of the equipment to be located in the IT datacenter?
    A) The approximate distance is 300 feet.

15. Q) Is the Extron ShareLink 250 an approved equal for the Barco ClickShare Classic Enterprise?
    A) Extron is NOT approved as an equal. Media sharing devices must operate without software loading to a laptop and have sharing initiated by external dongle button.

16. Q) During the Pre-Offer meeting, the products SVSI (for Networked AV) and BSS (for Audio Transport & DSP) were mentioned as being ACCEPTABLE for the purposes of bid submissions. Please confirm that statement for the record.
    A) Alternate approved with note that system must fully comply with design intent as outlined in the RFP. Any variations, advantages, or shortcomings shall be clearly noted in response.

17. Q) Pertaining to other requirements evident in the RFP, and discussed during the Pre-Offer meeting, please reply, indicating whether or not the following product groups are known to be ACCEPTABLE, or WOULD REQUIRE SUBMISSION AS SUBSTITUTE PRODUCTS for purposes of this procurement activity.
    - JBL (for speaker requirements)
    - AKG (for microphone requirements)
    - CROWN (for audio amplifier requirements)

    A) Please refer to Addendum 4, question 10..

18. Q) Please specify where on-site installation labor shall be included on Appendix A- Price Proposal Form.
    A) Provide installation labor in Non-Equipment section in Appendix A.

19. Q) For the CTECC, please provide specific list of audio sources that must be incorporated and available via the CTECC operator's workstation headset as Section 2.4.1.3.5 states "Audio systems are needed only in the EOC..." Also, please provide clarification if these audio sources must be available to both five (5) Desktop Workstations and the One Hundred-Fifteen (115) Operator Stations.
    A) Audio sources are limited to television or satellite feeds of news and weather channels and should be available to 115 users in CTECC and 60 users in EOC, at a minimum.

20. Q) For the A/TCEOC (EOC), please provide a specific list of audio sources that must be incorporated and available to the Fifty-Five (55) operator laptops and room based audio system.
    A) Audio sources are limited to television or satellite feeds of news and weather channels.

21. Q) For the CTECC, please specify the minimum number of simultaneous windowed HD sources on each of the three (3) smaller 2x2 video walls (Bottom Left, Bottom Center, and Bottom Right Video Walls).
    A) The video wall in CTECC is considered an extended display wall or palette, any source may be positioned anywhere on the upper or lower wall.

22. Q) Section 0500, item 2.4.5, please specify where the line item pricing for 2.4.5.1. should be provided?
    A) Section 2.4.5, the line items pricing for 2.4.5.1.1 was increased to 6000 ANSI lumens and 1920X1080 resolution. This is found on the optional equipment tab.

23. Q) Please clarify Section 0500, item 2.5.1.13 references item 2.4.1.2.11.6 which does not exist within the solicitation documents.
    The referenced Section should be 2.4.1.3.5 for the integrated room audio specifications.

24. Q) Please confirm that the three (3) projectors from the A/TCEOC (EOC) shall be reused for Rooms 317, 320B, and 320C as they are listed as "not required in final implementation" under Section 4.6.1.1.
A) For the purposes of pricing, the intent is to use the existing projectors from the EOC.

25. Considering Scope of Work page 6, 2.10 & page 10, 4.19:
a. How many simultaneous video conferences may occur throughout the facility?
One (1) video conference.
b. What is the quantity of sites required for the multisite capability?
Eight (8) remote sites.
c. Please define video sharing
Video sharing will use Barco ClickShare (or approved equal) within a room location. Virtual video walls and video sources may be shared among rooms and with other agencies.

26. Q) For image capture considering video conferencing (cameras), such as in the EOC & Rooms 317, 320B, etc.: where will they be located and how many per space?
A) There will be one video conference system in Room 320. No images or content shall be captured or stored.

27. Q) Section 0500, page 9, item 4.13: how far will the HDMI connection relative to each display?
A) The IP receiver nodes shall be located adjacent to displays.

28. Q) Section 0500, page 10-13, item 4.40: at what time in the process will this survey take place?
A) Refer to Scope of Work, 0500, Section 5, Deliverables/Milstones under Field Survey.

29. Q) For audio reinforcement in facility, is lip sync to video sources required? This is very difficult to achieve with an IP based systems with any encoded sources, even in the room from which the source originated; this issue is compounded when the audio and video feeds are discreet.
A) Audio sources are limited to television or satellite feeds of news and weather channels.

30. Q) How many licenses are needed for users?
A) Provide for 115 users in CTECC and 60 users in EOC, at a minimum.

31. Q) What if the solution requires a line item not included in the price proposal sheet?
A) Please see Section 0600, under TAB 10- Price Proposal.

32. Q) Please confirm row 21 of appendix B is correct in stating that the OFE document camera has an HDMI output. All other Document cameras on this sheet call out VGA outputs.
A) All document cameras need a VGA input.

33. Q) What is the output type/connector on the OFE Wireless weather Station (Appendix A row 44)?
A) The Proposers needs to provide for an IP input.

For questions 34-39, all devices will receive new endpoints for video and control shall be RS-232 for existing equipment.

34. Q) What is the make and model of the existing 3 EOC Confidence Monitors?
A) Dell

35. Q) What are the make and model of the existing EOC side and front displays?
A) Samsung 42" and Panasonic Plasma 65"

36. Q) What is the make and model of the 3 existing EOC projectors?
A) Sony VPL-FX52

37. Q) What is the make and model of the existing displays in room 320C?
A) 3M projector –SCP712

38. Q) What is the Make and model of the existing EOC document cameras
A) Wolfvision VZ8 Light.

39. Q) What is the make and model of the projector in room 320B and 317?
A) Mitsubishi XL30U

40. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/13/2017
Sai Xoomsai Purcell, Senior Buyer Specialist — Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor, Whitlock — _____ — March 23, 2017
Name — Authorized Signature — Date

RETURN ONE COPY OF THIS ADDENDUM TO THE PURCHASING OFFICE, CITY OF AUSTIN, WITH YOUR RESPONSE OR PRIOR TO THE SOLICIATION CLOSING DATE. FAILURE TO DO SO MAY CONSTITUTE GROUNDS FOR REJECTION.

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 8** **Date of Addendum: 03/14/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. Corrections:
   - The title of an Addendum published on 03/09/2017 is hereby changed from "Addendum 5" to "Addendum 4"
   - Date of Addendum 5 currently stated as 03/09/2017 is hereby changed to 03/13/2017.
2. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/14/2017
Sai Xoomsai Purcell, Senior Buyer Specialist Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor _____ March 23, 2017
Name Authorized Signature Date

RETURN ONE COPY OF THIS ADDENDUM TO THE PURCHASING OFFICE, CITY OF AUSTIN, WITH YOUR RESPONSE OR PRIOR TO THE SOLICIATION CLOSING DATE. FAILURE TO DO SO MAY CONSTITUTE GROUNDS FOR REJECTION.

ADDENDUM
CITY OF AUSTIN, TEXAS

Solicitation: PAX0141 **Addendum No: 9** **Date of Addendum: 03/20/2017**

This addendum is to incorporate the following changes, questions, and answers to the above referenced solicitation:

1. **PROPOSAL and COMPLIANCE PLAN DUE PRIOR TO:** 03/23/17, 2:00 pm, local time has been extended to 03/30/2017, 2:00 pm local time.

   PROPOSAL OPENING TIME AND DATE: 03/23/17, 2:15 pm, local time has been extended to 03/30/2017, 2:15 pm local time

2. Word Format of Purchasing Exceptions Form (formally named Attachment B and was corrected to read as Attachment A) has been added.
   Attachment A should be included under Tab 1 – City of Austin Purchasing Documents.

3. ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.

APPROVED BY: _____ 03/20/2017
Sai Xoomsai Purcell, Senior Buyer Specialist Date
Purchasing Office, 512-974-3058

ACKNOWLEDGED BY:

Craig Orris Taylor _____ March 23, 2017
Name Authorized Signature Date

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WHITLOCK BARCO BASE BID

Appendix A

MBE/WBE COMPLIANCE PLAN

All applicable sections must be completed and submitted by the due date and time as indicated in the solicitation documents.

Section I — Project Identification and Goals

Project Name	Audio Visual Equipment, Design, Installation Services
Solicitation Number	RFP 5600 PAX0141

Project Goals or Subgoals	
Combined MBE/WBE	%
MBE	1.85 %
African American	%
Hispanic	%
Asian/Native American	%
WBE	0.94 %

Section II — Bidder Company Information

Company Name	Audio Fidelity Communications Corp., dba Whitlock
Address	11100 Metric Blvd Ste 200E
City, State Zip	AUSTIN TX 78758
Phone	972 815 1126
Fax	972 815 1181 E-Mail TAYLORC@WHITLOCK.COM
Name of Contact Person	CRAIG ORRIS TAYLOR
Is your company registered on Vendor Connection?	Yes ☒ No ☐ *If yes, provide Vendor Code* WHI 8306420 If No, please note: All vendors; subcontractors and consultants must register with COA's Vendor Connect prior to award. See Link for registration information at https://www.ci.austin.tx.us/financeonline/finance/index.cfm
Is your company COA M/WBE certified?	Yes ☐ No ☒ *If yes, please indicate:* MBE ☐ WBE ☐ MBE/WBE Joint Venture ☐

I certify that the information included in this *MBE/WBE Compliance Plan* is true and complete to the best of my knowledge and belief. I further understand and agree that this *MBE/WBE Compliance Plan* shall become a part of my contract with the City of Austin.

Craig Orris Taylor, Senior Account Executive
Name and Title of Authorized Representative

Signature

3.30.17
Date

For City of Austin SMBR Use Only:

I have reviewed this Compliance Plan and found that the Bidder **HAS** ☒ **HAS NOT** ☐ *complied as per the City Code Chapter 2-9D through GFE.*

Reviewing Counselor _____ Date 04/11/17

I have reviewed this Compliance Plan and have found the Bidder **COMPLIANT** ☒ **NON-COMPLIANT** ☐

Director / Assistant Director _____ Date 4-11-17

WHITLOCK BALCO BASEBID WITHALL OPTIONS

Appendix A

Section III — MBE/WBE Compliance Plan Summary

Directions:

- For each subcontractor listed in Sections IV, V, VI or VII, fill in all blanks (if applicable).
- For project participation numbers use an EXACT number.
- Goal percentages should be based on the Base Bid amount only. Allowances are not included.
- Alternates are not recorded on this MBE/WBE Compliance Plan.
- If bidder is a certified M/WBE, include participation details in the Bidder box ONLY.
- MBE/WBE Compliance Plans not complying with these requirements shall be rejected as non responsive.

Is the stated project goal of the solicitation met? *(If no, attach documentation of Good Faith Efforts)* Yes ☒ No ☐

PROPOSED PARTICIPATION GOALS

Use this section to calculate participation.
Include all details including the total dollar amount and percentage for each category where applicable.

	MBE/WBE Project Goal	Bidder Participation Goal	
African American	%	$	%
Hispanic	%	$	%
Asian/Native American	%	$	%
WBE	0.94 %	$ 16473.71	1.00 %
MBE	1.85 %	$ 32,947.42	2.00 %
MBE/WBE Combined	%	$	%
Non-Certified		$ 83,418	5.06 %
Total Subcontractor Amount		$ 132,839.13	8.06 %
Bidder's Own Participation **(less any subcontracted amount)** Are you counting your own participation toward the goals? **(if yes, indicate below)** ☐ AA ☐ HIS ☐ A/NA ☐ WBE ☐ MBE		$ 1,514,531.87	91.94 %

Base Bid Amount (*Subs + Bidder amount*) $ 1,647,371.00 100 %

For SMBR Use Only:

Verified participation for each category:

African-American _____ % **Hispanic** _____ % **Asian/Native American** _____ % **WBE** _____ %

MBE 2.00 % **WBE** 1.00 % **Combined MBE/WBE** _____ %

Prime 91.94 % **Non-Certified** 97.00 %

WHITLOCK BARCO BASE BID WITH ALL OPTIONS

Appendix A

Section IV — Disclosure of MBE and WBE Subcontractors

(Duplicate as Needed)

Note:

- Fill in all the blanks (use "none" or "N/A" where appropriate).
- MBE/WBE Compliance Plans not complying with these requirements shall be rejected as non-responsive.
- Fill in names of MBE/WBE certified Firms as registered with City of Austin Vendor Connection.
- Select either MBE or WBE for dually certified firms to indicate which certification will count towards the MBE or WBE goal.
- Contact SMBR to request an availability list of certified Firms for additional scopes of work that were not included on the original availability list.

Name of MBE/WBE Certified Firm	AWS, Inc.	
City of Austin Certification Data	☒ MBE ☐ WBE Gender/ Ethnicity: M/ NATIVE AMERICAN	
Vendor Code	ADV830962 6	
Address/ City / State / Zip	8708 5. Congress, Ste A120, Austin 78745	
Contact Person & Phone #	Mike Huerta 512.779 3080	
Fax & Email Address	512 441 9473 MHUERTA@AWSCOM.NET	
Commodity Codes	28796	
Commodity Codes Descriptions	WIRE + CABLE, Electronic, Audio, Coax	
Amount of Subcontract	$ 32,947.42	2.00 %

Name of MBE/WBE Certified Firm	Onsite AV Service Partners	
City of Austin Certification Data	☐ MBE ☒ WBE Gender/ Ethnicity: F/ Caucasian	
Vendor Code	ONS 831712 9	
Address/ City / State / Zip	2120 W. Braker Ln. Ste K, Austin 78758	
Contact Person & Phone #	Jeff Franks 512 482-8467 x224	
Fax & Email Address	512 532 8227, JEFF@ONSITEAV.CO	
Commodity Codes	84084	
Commodity Codes Descriptions	Video and Audio Sys tems, Accessories	
Amount of Subcontract	$ 16,473.71	1.00%

Name of MBE/WBE Certified Firm		
City of Austin Certification Data	☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%

Name of MBE/WBE Certified Firm		
City of Austin Certification Data	☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%

WHITLOCK BARCO BASE BID WITH ALL OPTIONS

Appendix A

Section V — Disclosure of Non-Certified Subcontractors

(Duplicate as Needed)

Note:
- Fill in all the blanks (use "none" or "N/A" where appropriate).
- MBE/WBE Compliance Plans not complying with these requirements shall be rejected as non-responsive.
- Fill in names of Second-Level Subcontractors as registered with the City of Austin.

Are Goals Met? Yes ☒ No ☐ **If no, state reason(s) below and attach documentation:**

Name of Non-Certified Subcontractor	Intelligent Control Systems +, dba ICS+	
Vendor Code	V00000921950	
Address/ City / State / Zip	5506 Hwy 290 W Ste 206 Austin TX 78735	
Contact Person & Phone #	Stephanie R. Morgan 512 301 0220 x105	
Fax & Email Address	512 301 1186, SMORGAN@ICSPLUSONLINE.COM	
Commodity Codes	92040	
Commodity Codes Descriptions	PROGRAMMING SERVICES, COMPUTER	
Amount of Subcontract	$ 83,418	5.06%
Reason Certified Firm not used	no Certified Firm Available RFP Requirement.	
Name of Non-Certified Subcontractor		
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
Reason Certified Firm not used		
Name of Non-Certified Subcontractor		
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		
Reason Certified Firm not used		
Name of Non-Certified Subcontractor		
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		
Reason Certified Firm not used		

WHITLOCK BARCO BASE BID WITH ALL OPTIONS Appendix A

Section VI — Disclosure of Second-Level Subcontractors

(Duplicate as Needed)

Note:

- Fill in all the blanks (use "none" or "N/A" where appropriate).
- MBE/WBE Compliance Plans not complying with these requirements shall be rejected as non-responsive.
- Fill in names of Second-Level Subcontractors as registered with the City of Austin.

Name of Second-Level Subcontractor	NONE	
City of Austin Certified? (choose one)	☐ No ☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		
Name of Second-Level Subcontractor	NONE	
City of Austin Certified? (choose one)	☐ No ☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		
Name of Second-Level Subcontractor	NONE	
City of Austin Certified? (choose one)	☐ No ☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		
First-Level Subcontractor		
Name of Second-Level Subcontractor	NONE	
City of Austin Certified? (choose one)	☐ No ☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person & Phone #		
Fax & Email Address		
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%
First-Level Subcontractor		

WHITLOCK BARCO BASE BID WITH ALL OPTIONS

Appendix A

Section VII — Disclosure of Primary and Alternate Trucking Subcontractors

(Duplicate as Needed)

Note:

- Fill in all the blanks (use "none" or "N/A" where appropriate).
- MBE/WBE Compliance Plan s not complying with these requirements shall be rejected as non-responsive.
- Fill in names of Primary and Alternate Trucking Subcontractors as registered with the City of Austin.

Primary Trucking Subcontractor	NONE	
City of Austin Certified? (choose one)	☐No ☐ MBE ☐ WBE Gender/ Ethnicity:	
Vendor Code		
Address/ City / State / Zip		
Contact Person	Phone #:	
Commodity Codes		
Commodity Codes Descriptions		
Amount of Subcontract	$	%

Alternate Trucking Subcontractor	NONE
City of Austin Certified? (choose one)	☐No ☐ MBE ☐ WBE Gender/ Ethnicity:
Vendor Code	
Address/ City / State / Zip	
Contact Person	Phone #:
Commodity Codes	
Commodity Codes Descriptions	

Alternate Trucking Subcontractor	NONE
City of Austin Certified? (choose one)	☐No ☐ MBE ☐ WBE Gender/ Ethnicity:
Vendor Code	
Address/ City / State / Zip	
Contact Person	Phone #:
Commodity Codes	
Commodity Codes Descriptions	

Alternate Trucking Subcontractor	NONE
City of Austin Certified? (choose one)	☐No ☐ MBE ☐ WBE Gender/ Ethnicity:
Vendor Code	
Address/ City / State / Zip	
Contact Person	Phone #:
Commodity Codes	
Commodity Codes Descriptions	

Alternate Trucking Subcontractor	NONE
City of Austin Certified? (choose one)	☐No ☐ MBE ☐ WBE Gender/ Ethnicity:
Vendor Code	
Address/ City / State / Zip	
Contact Person	Phone #:
Commodity Codes	
Commodity Codes Descriptions	

WHITLOCK RARCO BASE BID WITH ALL OPTIONS

Appendix A

Section VIII — MBE/WBE Compliance Plan Check List

Is the stated project goal of the solicitation met?

Yes ☒ No ☐

(If no, complete and submit Section VIII Compliance Plan Check List)

If the goals or subgoals were not achieved, all questions in Section VIII ***must*** be completed and **Good Faith Efforts documentation must be submitted with the MBE/WBE *Compliance Plan*.** The completion and submission of this form is not required if the above question is answered *Yes*.

Is the following documentation attached to support good faith effort requirements to achieve goals or subgoals?		
• Copy of written solicitation sent to MBE/WBEs in SLBP area 7 business days prior to the submission of this Compliance Plan	Yes ☐	No ☐
• Two separate methods of notices sent to MBE/WBEs in SLBP area Indicate notice types: fax transmittals emails phone log letters	Yes ☐	No ☐
• Copy of advertisements placed in local publication	Yes ☐	No ☐
• Copy of notices sent to Minority and Women organizations	Yes ☐	No ☐
• Documentation that demonstrates additional GFEs: o Efforts to assist interested MBEs/WBEs in obtaining bonding, lines of credit, or insurance as required by the City or contractor o Efforts to assist interested MBEs/WBEs in obtaining necessary equipment, supplies, materials, or related assistance or services o Efforts made to reach agreements with the MBE/WBEs who responded to Bidder's written notice	Yes ☐	No ☐

Were additional elements of work identified to achieve the goals or subgoals? Yes ☐ No ☐

If yes, please explain: _____

Was SMBR contacted for assistance? Yes ☒ No ☐

If yes, complete following:

Contact Person: Jessica Oberembt

Date of Contact: 3.24.17

Summary of Request: Instructions on filling out Compliance Plan

Were Minority or Women organizations contacted for additional assistance? Yes ☐ No ☐

If yes, complete following:

Organization(s): _____

Date of Contact: _____

Summary of Request _____

Statement of Work- PID22329

RFP 5600 PAX041

Submitted to:
City of Austin

Submitted by:

Craig Orris Taylor
Key Account Manager
Whitlock/Texas

REVISION PUBLISH Date:

7/12/17

ORIGINAL PUBLISH Date:

3/30/2017

Contents

1. Overview

Whitlock is a global AV and UC Solutions Provider, specializing in collaborative technology design, integration and managed services.

Since 1956, we have helped Customers optimize, standardize and protect the value of their audiovisual technology investments.

Whitlock helps Customers create engaging, interactive environments, including:

- Telepresence/videoconferencing rooms
- Digital signage networks
- Auditoriums
- Collaborative classrooms and training facilities
- Visualization rooms
- Courtrooms
- Control rooms/network operations centers

Whitlock also offers expansive AV managed services, including AVNOC and remote support, field services, on-site managed services, videoconferencing warranty/maintenance and virtual and hosted video services.

Whitlock has a nationwide presence with 20 locations across the U.S., plus we have access to a global network of partners through our Global Presence Alliance. Our Customer delivery teams consist of seasoned AV engineers and certified professionals with InfoComm International® CTS, CTS-D and CTS-I technology certifications as well as advanced training credentials from all major AV and videoconferencing manufacturers. We also have a formal training program to keep our professionals informed of new techniques and emerging technologies in the industry.

Whitlock has been providing design-build services and maintenance and repair services at the Austin CTECC facility since 2006. We have completed dozens of projects in the past ten years, and completely understand the mission-critical nature of the facility. Whitlock's Austin office has three dedicated field service technicians for post-installation service.

2. System Descriptions

Main EOC

The Main EOC will undergo a technology refresh of the A/V system. This will encompass the audio system, video system and control system. The BOM and system design are in reference to the specification in RFP_5600_PAX0141.

Video System:

- The video system will be IP based. This allows the users to display any of the rooms 81 sources on any of the rooms 24 displays as well as streams to devices external to the EOC if that is purchased from the Optional Equipment tab. These sources will also be available on the Operations Floor displays. Please see Operations Floor Section for details.

- There is only one (1) option proposed in this RFP response, Barco CMS with TransForm N video wall processing. This system utilizes an IP-based video distribution system. Jupiter's advantage is that it may both send and receive video to and from authorized users with laptops, tablets and smart phones that are in remote locations. Barco may send video to authorized users with laptops, tablets and smart phones that are in remote locations, but does not have capability to receive images from such devices. Pricing for inclusion of capabilities for remote users on laptops, tablets and smart phones is found on OPTIONAL Equipment Pricing Spreadsheet, as requested.

- The main display system in the EOC Room 320 will consist of four (4) 13000lm, 1920x1080 pixel, Laser Phosphor Hybrid projectors. They will be ceiling-mounted projecting onto a custom 76in x 538in (544in diagonal) front projection screen. The projectors will be edge butted to form one large image. Power will be provided to these projectors by others.

- A video wall processor in the EOC Room 320 will provide the ability to have up to twelve (12) video images on the screen at once. These windows can be recalled from a preset, or dynamically manipulated using the video wall software.

- The side displays in the EOC Room 320 will consist of ten (10) owner-furnished 65" 1080p flat panel displays. These displays will be ceiling hung. Power will be provided to these displays by others. An option is proposed to replace these displays with twelve (12) new commercial 24/7 rated 65" displays.

- The confidence monitors in the EOC Room 320 will consist of three (3) owner furnished 40” 1080p flat panel displays. These displays will be mounted to the front of the pod furniture. Any custom mounting or fabrication needed, may result in additional labor and part cost. Power will be provided to these displays by others.

Audio System:

- The existing audio system will be upgraded by adding a new QSC Core 500-series audio DSP and IP-based audio distribution system. The existing amplifiers and ceiling speakers are being reused in the upgrade.

- A new audio DSP will be a card frame-based server that utilizes various input and output cards custom configured and expandable for future proofing. The DSP will handle all the room audio mixing, audio conference dialing and level controls.

- A new wireless microphone system will be installed. This system has ten (10) channels of encrypted wireless mics, 8 handheld and 2 lavalier mics.

- An IP based audio distribution system will provide audio from any of the rooms sources and distribute it to all of the laptop and desktop computers in the EOC, the three breakout rooms, and the Operations Floor. CTECC will be responsible for providing the list of available source prior to implementation. The sources can be restricted to certain users. This will be done by simply removing that source from the custom scripted UI.

- This system will utilize RTP streaming from the QSC processor to the users over the CTECC network.

- Each user will have an icon on their machine labeled ‘Audio Sources’. Clicking this icon will launch an executable custom scripted UI that has all of the available audio sources on it. This UI is local to the machine and is not being served up over the network.

- When a source is selected (by clicking it) a session of VLC viewer bill be launched that is pre-coded to the correct stream.

- The user will control the volume level and muting of the audio using their laptop audio controls.

- The audio playback feature can be shut down by simply closing VLC.

- Please see attached document labeled “Audio Source Playback Example” for a graphical representation of the functionality. Please note this is just an example and the layout and flow of the UI will be determined by CTECC and Whitlock programmers upon UI design review meetings

- A softphone in the DSP will allow the users to conduct audio conferences using the wireless mics and ceiling speakers. Dialing will be done using the touch panel.

Control system, programming to be provided by ICS+:

- A new control system will provide control for the EOC, the three (3) breakout rooms, and the Operations Floor.

    - The new control system for the EOC will have two (2) 10.5” touch panels. These touch panels will have a custom UI that will allow, but not be limited to the following control of the room. Exact functionality of UI will be decided upon after design and functionality meetings with CTECC staff and Whitlock programmers. System power on/off.

    - Display input selection.

    - Source routing: Any source to any destination.

    - Video wall preset recall.

    - Level controls: Microphones, program sources, incoming and outgoing ATC calls.

    - ATC dialing, answering and hangup.

    - Integration to existing lighting control.

    - Whitlock verifies that different interfaces will be developed to meet the needs of the two groups, Operations Floor and Emergency Ops. Whitlock verifies that the systems will be integrated and that sharing capabilities will be provided. Per RFP, Whitlock will sub-contract this portion of the work to Austin-based Bernard Morgan of ICS+.

Equipment Racks:

- Whitlock will provide two (2) new equipment racks to house all of the A/V equipment.

- These equipment racks will be equipped with front and rear doors, power distribution and cooling fans.

- Power will be provide to the rack by others.

Room 320B

Room 320B is a small breakout room to the side of the EOC. Functionality upgrades for this room will consist of a repurposed projector and flat panel from EOC, new control touch panel and IP video I/O.

Video System:

- The video system will be IP-based. This allows the users to display any of the room sources as well as EOC sources on the display as well as stream to devices external to the EOC.

- A ceiling-mounted projector will be repurposed from the EOC and installed in this room. The existing projection screen will be reused.

- A 65” flat panel display will be repurposed from the EOC and installed in this room. A new wall mount will be provided.

Audio System:

- The existing audio system will be upgraded by adding a new DSP and IP-based audio distribution system. The existing amplifiers and ceiling speakers are being reused in the upgrade.

Control system, programming to be provided by ICS+:

- This control system ties into the main EOC.

- The control system will have one (1) 7” touch panel. This touch panel will have a custom UI that will allow, but not be limited to the following control of the room. Exact functionality of UI will be decided upon after design and functionality meetings with CTECC staff and Whitlock programmers.

    - System power on/off.

- Display input selection.
- Source routing.
- Level controls: Program sources.

Equipment Racks:

- The equipment for this room will be housed in the Main EOC rack.

Room 320C

Room 320C is a small breakout room to the side of the EOC. Functionality upgrades for this room will consist of a repurposed projector and flat panel from EOC, new control touch panel and IP video I/O.

Video System:

- The video system will be IP-based. This allows the users to display any of the room sources as well as EOC sources on the display as well as stream to devices external to the EOC.
- A ceiling-mounted projector will be repurposed from the EOC and installed in this room. The existing projection screen will be reused.
- A 65” flat panel display will be repurposed from the EOC and installed in this room. A new wall mount will be provided.

Audio System:

- The existing audio system will be upgraded by adding a new DSP and IP-based audio distribution system. The existing amplifiers and ceiling speakers are being reused in the upgrade.

Control system, programming to be provided by ICS+:

- This control system ties into the main EOC.
- The control system will have one (1) 7” touch panel. This touch panel will have a custom UI that will allow, but not be limited to the following control of the room. Exact

functionality of UI will be decided upon after design and functionality meetings with CTECC staff and Whitlock programmers.

- System power on/off.
- Display input selection.
- Source routing.
- Level controls: Program sources.

Equipment Racks:

The equipment for this room will be housed in the Main EOC rack.

Room 317

Room 317 is a small breakout room to the outside of the EOC. Functionality upgrades for this room will consist of a repurposed projector from EOC, new control touch panel and IP video I/O.

Video System:

- The video system will be IP-based. This allows the users to display any of the room sources as well as EOC sources on the display as well as stream to devices external to the EOC.
- A ceiling-mounted projector will be repurposed from the EOC and installed in this room. The existing projection screen will be reused.

Audio System:

- The existing audio system will be upgraded by adding a new DSP and IP-based audio distribution system. The existing amplifiers and ceiling speakers are being reused in the upgrade.

Control system, programming to be provided by ICS+:

- This control system ties into the main EOC.
- The control system will have one (1) 7” touch panel. This touch panel will have a custom UI that will allow, but not be limited to the following control of the room. Exact

functionality of UI will be decided upon after design and functionality meetings with CTECC staff and Whitlock programmers.

- System power on/off.
- Display input selection.
- Source routing.
- Level controls: Program sources.

Equipment Racks:

The equipment for this room will be housed in the Main EOC rack.

Operations Floor

- The video system will be an IP-based system. This allows the users to display any of the room's 81 sources on any of the room's 60 displays; a requested Option is provided as well to send streams to devices external to the Operations Floor and EOC.
- There is one (1) option proposed in this RFP response, Barco CMS with TransForm N videowall processors. The Barco Option utilizes an IP-based video distribution system.
- The main display system will consist of 60 owner-furnished Mitsubishi display wall cubes. These cubes are configured as a 4H x 12W array, and three 2x2 arrays. One videowall processor will handle each of the four arrays, so there are a total of four videowall processors for the Operations Floor area.
- The video wall processors will provide the ability to have up to sixty (60) video images on the screens at once. There is also the capability for custom-sized windows. These windows can be recalled from a preset, or dynamically manipulated using the video wall software. The top wall will be considered one display wall and each of the bottom three walls will be considered their own display walls.

Audio System:

- An IP-based audio distribution system will provide audio from selected sources and distribute it to laptop and desktop computers in the Operations Floor, EOC and the three

breakout rooms. CTECC will be responsible for providing the list of available source prior to implementation. The sources can be restricted to certain users. This will be done by simply removing that source from the custom scripted UI.

- This system will utilize RTP streaming from the QSC processor to the users over the CTECC network.
- Each user will have an icon on their machine labeled ‘Audio Sources’. Clicking this icon will launch an executable custom scripted UI that has all of the available audio source on it. This UI is local to the machine and is not being served up over the network.
- When a source is selected (by clicking it) a session of VLC viewer bill be launched that is pre-coded to the correct stream.
- The user will control the volume level and muting of the audio using their laptop audio controls.
- The audio playback feature can shut down by simply closing VLC.
- Please see attached document labeled “Audio Source Playback Example” for a graphical representation of the functionality. Please note this is just an example and the layout and flow of the UI will be determined by CTECC and Whitlock programmers upon UI design review meetings.

Control system:

- A new control system will provide control for the EOC and three (3) breakout rooms and Operations Floor. All programming is to be provided by ICS+.
- The new control system for the Operations Floor will have three (3) 10.5” touch panels. These touch panels will have a custom UI that will allow, but not be limited to the following control of the room. Exact functionality of UI will be decided upon after design and functionality meetings with CTECC staff and Whitlock programmers.
  - System power on/off.
  - Display input selection.
  - Source routing: Any source to any destination.

- Video wall preset recall.
- Integration to existing lighting control.
- Whitlock verifies that different interfaces will be developed to meet the needs of the two groups, Operations Floor and Emergency Ops. Whitlock verifies that the systems will be integrated and that sharing capabilities will be provided. Per RFP, Whitlock will sub-contract this portion of the work to Austin-based Bernard Morgan of ICS+.

Equipment Racks:

- Whitlock will provide three (3) new equipment racks to house all of the A/V equipment.
- These equipment racks will be equipped with front and rear doors, power distribution and cooling fans.
- Power will be provide to the rack by others.

Exceptions to Technical RFP:

1. RFP_5600_PAX0141_3_v1 (System Requirements 01): The Audiovisual (AV) Contractor shall provide four (4) Laser Phosphor Hybrid projectors utilized to form a unitized image to fill a large front projection screen approximately 7'0" x 44'0". Whitlock will verify exact screen size upon review of final build drawings.
2. RFP_5600_PAX0141_3_v1 (System Requirements 09, 10, 11): The AV Contractor shall provide the Automatic Imaging Alignment System that is a computer based software and hardware system to realign the projection system over time. Whitlock has excluded this from the design. After reviewing this requirement with the manufacturer of this alignment system, Scalable Displays, there is no need for this product. The product is manufactured for alignment of edge-blended projection systems, and is not needed for edge-butted projection systems such as the one proposed for the Main EOC Room 320. Neither the Price Proposal Form nor the Statement of Work provided with the RFP mentions the Automatic Imaging Alignment System, so Whitlock assumes that its mention in the System Requirements 09.10, 09.11 is an oversight.

3. The Price Proposal Form for the Main EOC Room 320 requests pricing for quantity 20 1080p HDMI Video Scalers. Whitlock's design only requires quantity four of these Scalers, so only quantity four are provided in our pricing proposal. These scalers are used to convert certain types of video signals (e.g., HD-SDI or SDI) to an HDMI video signal. Whitlock's count of video sources that require this type of conversion is four.

4. The Price Proposal form for the Main EOC Room 320 requests pricing for quantity four Data/Video 1080p 3 chip DLP projectors, 14000 Lumens. Laser Phosphor illumination is required. There is no known projector that meets these requirements. Whitlock has specified four Data/Video 1080p 1 Chip DLP projector 13000 Lumens with Laser Phosphor illumination instead, the same projector make and model that was specifically requested in the related previous RFP PAX0138.

Exception to Section 0400 Supplemental Provisions:

Whitlock takes exception to the proposed 20% retainage until completion of all work required by the Contract, Section 0400, Page number 3, Section Number 6, Section Description RETAINAGE. Whitlock proposes alternate language that the City will withhold 10 percent (%) retainage until completion of all work required by the Contract. (Remainder of 0400 is acceptable).

3. Whitlock Answers to City of Austin Questions:

- Provide the Barco documentation regarding infrastructure requirements (8-9 pages) excerpt mentioned during the meeting.

WHITLOCK RESPONSE: See ATTACHMENT 3, Barco CMS Installation Manual. Whitlock also includes this manual in the equipment specification section of our Proposal Response, which is Tab 5.2 Cut Sheets.

- Provide rack installation pictures (front & back) from a previous, similar installation.

WHITLOCK RESPONSE: Please see attached photographs of a QSC Audio Core 500i equipment rack that is currently in one of our Quality Assurance Centers in Texas. These are ATTACHMENT 4A, 4B, and 4C. Whitlock adds these three photos to the Quality Assurance section of our Proposal Response, which is Tab 6.

- Verify that programming will include the different interfaces to meet the needs of two groups (operations floor and Emergency Ops). The systems will be integrated and sharing capabilities will be provided.

WHITLOCK RESPONSE: Whitlock verifies that different interfaces will be developed to meet the needs of the two groups, Operations Floor and Emergency Ops. Whitlock verifies that the systems will be integrated and that sharing capabilities will be provided. Per RFP, Whitlock will sub-contract this portion of the work to Austin-based Bernard Morgan of ICS+.

- Provide a project plan for a software upgrade and how that would be handled.

WHITLOCK RESPONSE: Barco releases software updates every quarter for its products. The Whitlock Field Service Technician (FST) would verify that any update does not interfere with your current control environment(Crestron) and request approval from designated City of Austin Point of Contact to install the update during a scheduled preventive maintenance visit. Barco typically alerts the Whitlock AvNOC of available updates; these would then be provided by AvNOC personnel to the FST prior to the scheduled onsite preventive maintenance visit. Note that as part of Whitlock's best practices, we typically do not immediately update to the latest firmware, but instead intentionally remain one generation of updates behind. Whitlock has learned that it does not pay to be on the bleeding edge of software and firmware updates. Whitlock makes an exception to this for updates identified as critical by the manufacturer.

- Describe in more detail how COA would be alerted to patches required.

WHITLOCK RESPONSE: Prior to the scheduled preventive maintenance or service call visit, the Whitlock FST would review all updates provided to the Whitlock AvNOC from the Barco portal and check for compatibility with your solution. Upon arrival at the CTECC site for a scheduled preventive maintenance or service call visit, the Whitlock FST would alert COA point of contact to any required patches. Also, should the Whitlock AvNOC receive notification from the manufacturer of a critical patch, the AvNOC would contact the COA point of contact to schedule an emergency Whitlock FST service call to install that critical patch. As previously noted, it is part of Whitlock's best practices that we typically do not immediately update to the latest version, but instead use the prior version to ensure that any bugs have been discovered by early adopters. If the version push creates an issue within the operational environment, Whitlock is always prepared to roll back the update to the previous version. In the case of a rollback, Whitlock would then notify the manufacturer of the firmware incompatibility, as well as alerting COA to the rollback.

- Provide an overview on the AvNOC offering and provide specifics about alerting and how systems are triaged and troubleshot remotely.

WHITLOCK RESPONSE: Please see the attached Whitlock Priority Service Plan developed for this opportunity, ATTACHMENT 5. This PSP is also included under Tab 9 of our Proposal Response. This PSP was provided with our original Proposal Response, and we

have also attached it to this document today because it provides an overview of our AvNOC offering and specifics about alerting. Essentially, COA would contact the AvNOC via phone (866-944-8562), email (service@whitlock.com), or website (www.whitlock.com/support-request/). Whitlock is capable of providing technical support via VPN access for the purposes of triage and remote diagnosis, provided that the City of Austin can issue access through their firewall and grant permission to Whitlock for port access to the Barco solution. Whitlock would be glad to discuss a possible future Creston Fusion into the proposed Barco solution. A Crestron Fusion integration would potentially give Whitlock the ability to actively monitor and proactively respond to any service alerts and provide triage and troubleshooting remotely prior to COA contacting the AvNOC.

Please note that COA personnel at CTECC have been accessing the Whitlock AvNOC since 2009. Whitlock has processed over 300 service tickets for CTECC since 2009.

- Do you have an installation of a Barco, IP solution in Texas that is similar to the one you have proposed?

WHITLOCK RESPONSE: Yes. Whitlock has successfully completed two Barco CMS IP Solutions for Schlumberger in Houston, and one Barco CMS IP solution for Shell in Houston. Whitlock's Texas team installed another Barco CMS IP solution for Shell in New Orleans, upon which job Shen Milsom Wilke were the audiovisual consultants.

Video Conferencing

- What Licenses are required for the system?

WHITLOCK RESPONSE: The Cisco SX80 Videoconferencing system was one of the very few products that was specified in the RFP by make and model. The RFP asked that this SX80 be provided with multipoint software license and a video content sharing license. Whitlock has included the multipoint software license, which is permanent; content sharing is a standard capability of the SX80 codec, and thus no additional license for video content sharing is required. Cisco also requires that an annually renewable manufacturer's support agreement be purchased. Whitlock includes Year One of this required Cisco support for codec and cameras in our EOC pricing, and we include renewal of this required Cisco support in Years Two through Five of our Whitlock Priority Service Plan, see ATTACHMENT 5.,also found under Tab 9 of our Proposal Response.

- Is there a way to integrate with laptops/tablets?

WHITLOCK RESPONSE: Yes. A Barco CMS Output node would connect to the Cisco SX80 codec. Any laptop/tablet connected to the CMS system could be sent as a source to the SX80 codec.

- What “head end” is included?

WHITLOCK RESPONSE: Whitlock has not included any videoconferencing head end equipment, such as bridges, firewall traversal, etc. No head end equipment was mentioned nor requested in the RFP to date. Whitlock is a Cisco Premier Partner, and also a vendor of other VCAAS (Video Conferencing as a Service) VTC head end services, and would be fully capable of working with the City of Austin to explore the implementation of a new cloud-based or hardware-based head end system for video collaboration.

- Does it talk efficiently to other systems/brands? Vidyo is end-of-life; however, regional partners have the Vidyo solution and may not be able to upgrade quickly due to funding. How would the systems integrate?

WHITLOCK RESPONSE: Cisco can talk with other brands of hardware and software codecs. Due to the number of different options on how users do their video conferencing, its hard to pin down what traversal hardware would be needed. It is Whitlock's recommendation that CTECC use a cloud-based bridging service, VCAAS, as mentioned in the previous answer. This service would allow most hardware and software codecs to communicate using one platform. Whitlock offers this as a service we call V-Concert. Its a cloud based suite for video collaboration.

- Does QSC require a specific browser software/version, or is one preferred over the other?

WHITLOCK RESPONSE: No. No specific browser software/version is required for the QSC solution that Whitlock has proposed.

- Can you confirm that the software required for the audio solution could be packaged for mass deployment (silent installer)?

WHITLOCK RESPONSE: Yes. Yes, the software required for the audio solution could be packaged for mass deployment.

- Confirm Audinate software is the intended user interface for operators to select audio streams to monitor. A cost of $35 per user was mentioned in the meeting. Is this cost included in your proposal. If so how many software licenses are included.

WHITLOCK RESPONSE: No, the Audinate software is no longer the intended user interface for operators to select audio streams to monitor. Whitlock made a minor software change that has no price consequences. Whitlock no longer plans to use the Dante audio transport software protocol; rather, Whitlock will now use the VLC transport software

protocol. VLC is a very widely used free media player software. VLC is already required for the Barco CMS system, so removing Dante audio transport software will reduce complexity of the overall system.

The intended user interface for operators to select audio streams to monitor will be a Whitlock-developed custom user interface that resides as an executable on each of the 175 laptops, and leverages the power of the QSC Core 500 audio digital signal processor already included in the Whitlock design. Two software items will need to be loaded onto each of the 175 laptops: VLC software, available as a free download; and a Whitlock-developed custom user interface (UI) that will be an executable file residing internally on each laptop.

- This system will utilize RTP streaming from the QSC processor to the users over the CTECC network.
- Each user will have an icon on their machine labeled 'Audio Sources'. Clicking this icon will launch an executable custom scripted UI that has all of the available audio sources on it. This UI is local to the machine and is not being served up over the network.
- When a source is selected (by clicking it) a session of VLC viewer will be launched that is pre-coded to the correct stream.
- The user will control the volume level and muting of the audio using their laptop audio controls.
- The audio playback feature can be shut down by simply closing VLC.
- Please see attached document labeled ATTACHMENT 2 for a graphical representation of the functionality. Please note this is just an example and the layout and flow of the UI will be determined by CTECC and Whitlock programmers upon UI design review meetings. This is found under Tab 5.2 of our Proposal Response.

Also, please see attached revised Proposal Response, ATTACHMENT 1A, 1B, and 1C.

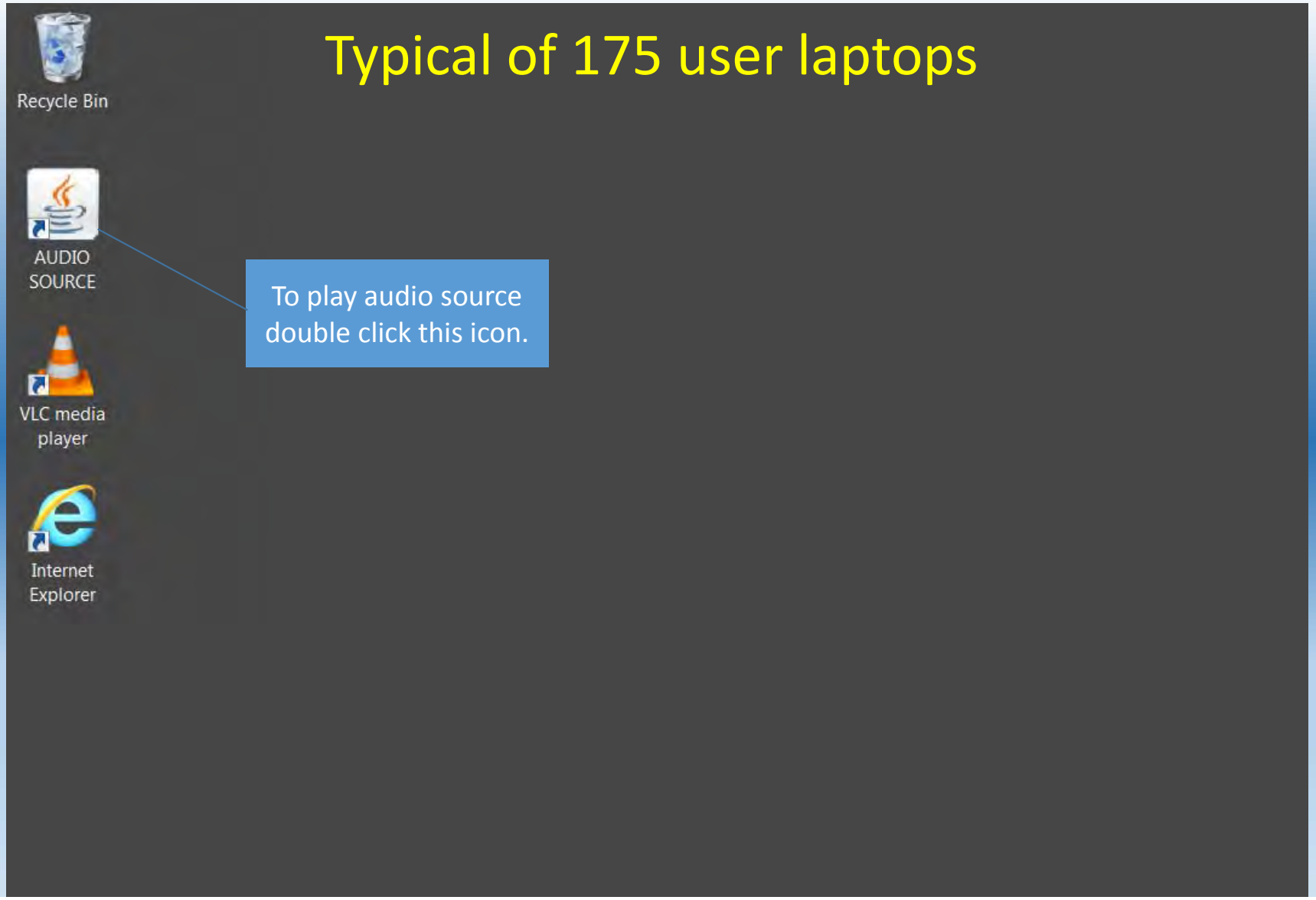
- Describe in more detail the user interface for the audio monitor solution? Is there overall control that will allow some users to receive certain audio streams or mute selected audio streams to selected users?

WHITLOCK RESPONSE: The QSC Core 500 audio DSP has internal URL's for each of the audio sources connected to it. The Whitlock custom user interface will be an array of graphic buttons that, when pressed, will connect to the corresponding URL on the audio DSP of the selected audio source, such as a local TV station. After the connection to the URL is made, the audio stream from that selected audio source will be transported over VLC transport from the audio DSP to the laptop headphone jack that requested it within moments. These graphic buttons could have almost any look that was requested; e.g, they could look like the logos of local TV stations. Whitlock will work with the City of Austin designated user group to develop the desired look of the custom user interface.

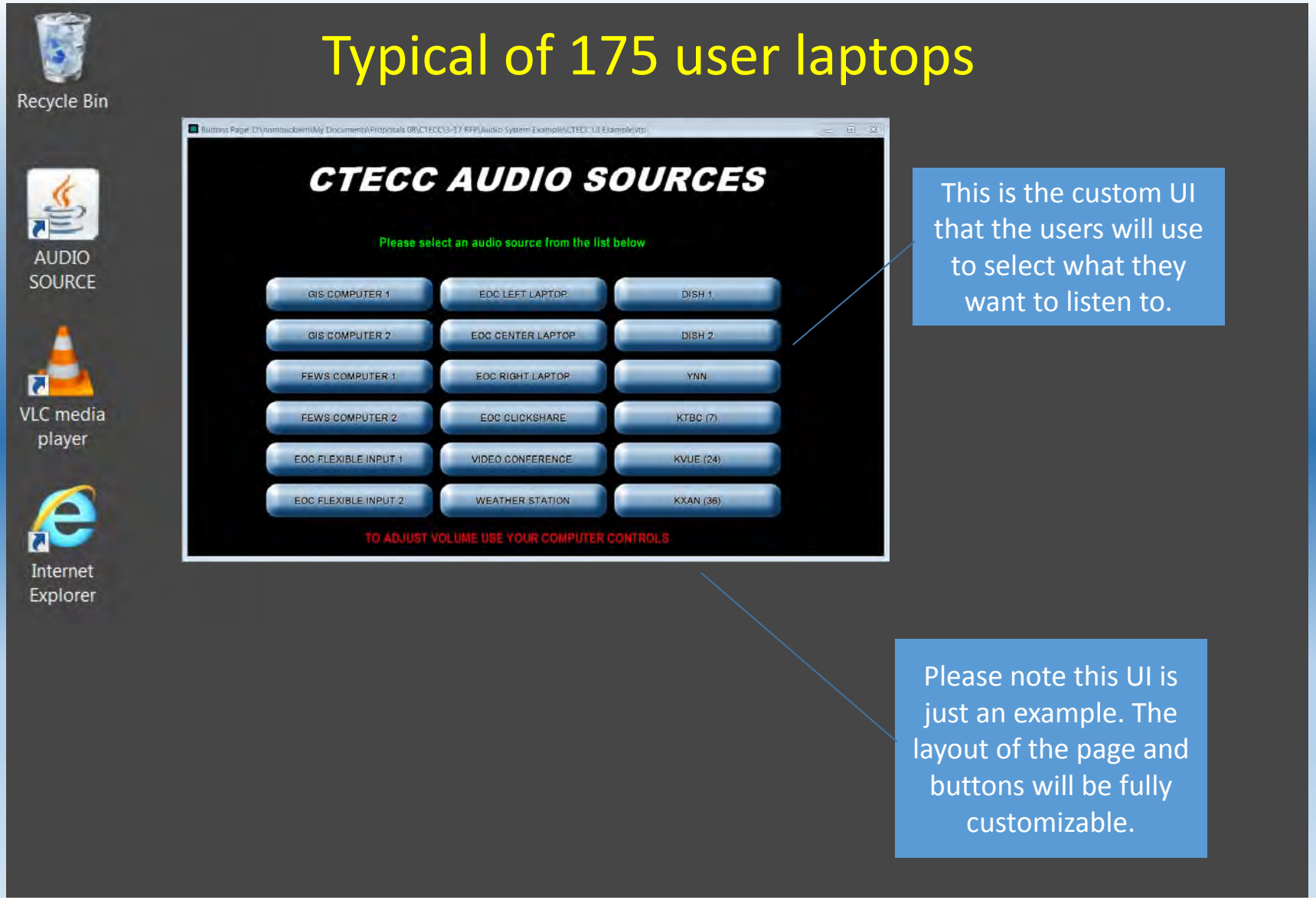
Yes, the audio monitor solution will allow some users to receive only certain audio streams. The simplest way to accomplish this would be to provide an individually constituted custom user interface for each of the 175 users that contains only those audio streams for which they are allowed access. Adding or removing graphic buttons to each individual custom user interface is a simple, though not instantaneous, process, which could be easily addressed by a trained CTECC administrator.

Please see ATTACHMENT 2 for pictures and graphics further describing the audio monitor solution, which is found under Tab 5.2 of our Proposal Response.

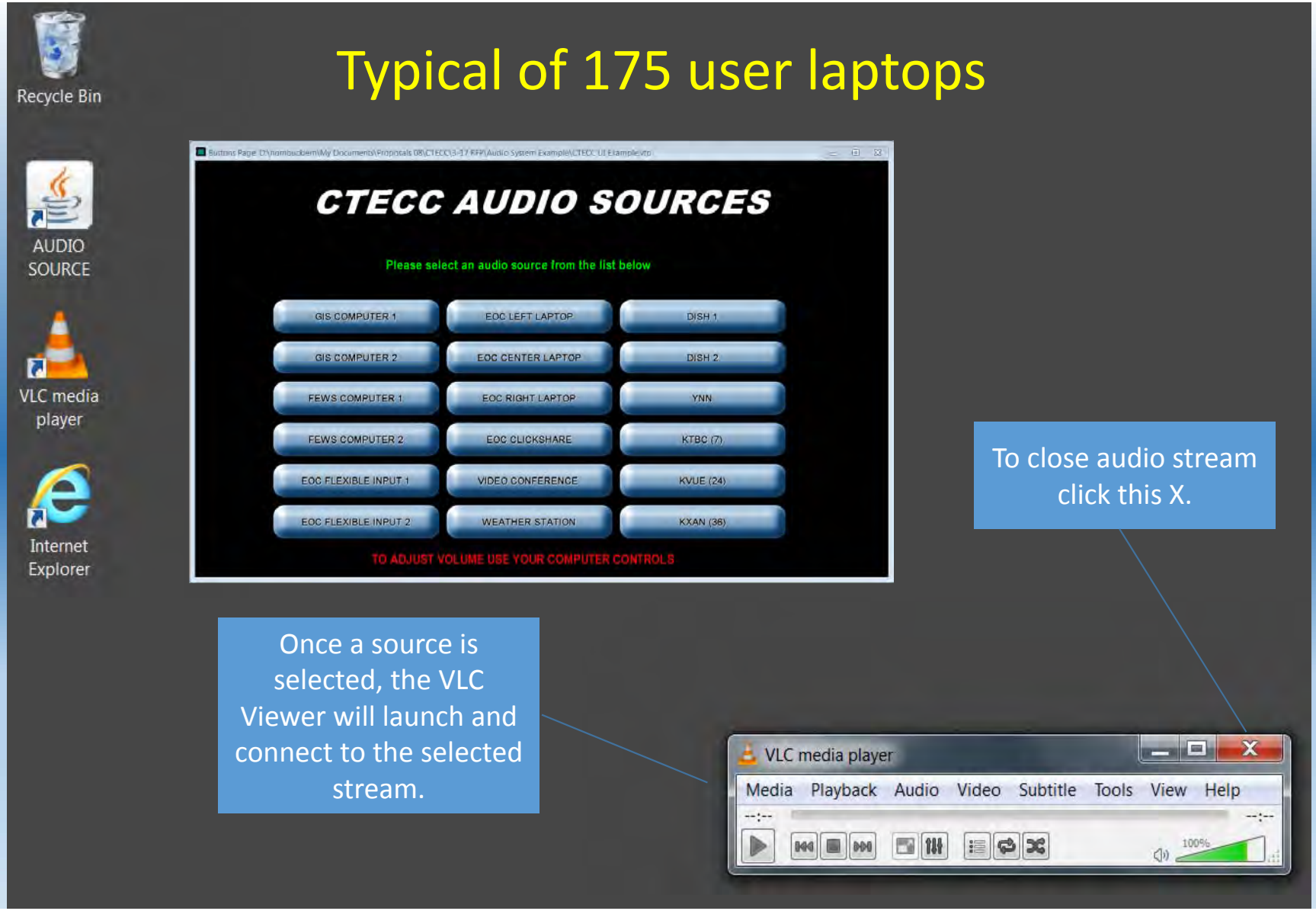
Attachment 2 - Audio Source Playback Graphic Depiction



Typical of 175 user laptops



Typical of 175 user laptops



32 Network considerations

TransForm N is a network centric solution. This requires to consider network topology and network setup.

These are some questions to be answered:

Setup in one network or in two networks (usually called Business LAN and video LAN)

Setup in a dedicated network or integration into the customer's network (which implies knowing domain membership and which kind of policies will be applied, starting from automated security updates, Anti Virus and other group policies)

static IP addresses or IP addresses given by a DHCP server

automatic multicast addressing by CMS or manually assigned multicast addresses

As usual, there are pros and cons, and they need to be regarded and well balanced before any device gets connected and configured.

The following summary might help you in finding the right decision:

- For a redundant setup of CMS server (Linux only) static IP addresses are mandatory.
- For a redundant setup of CMS server, the CMS servers are configured for bonding of interfaces (i.e. the server resides exclusively in one network)
- Device detection is restricted to one network.
- The CMS server needs to reside in the monitored network (= network with device detection).
- Devices of type NGP-XXX and NGS-XXX can manually be added using the **Device Management Client** application.
- Automatic assigned multicast addresses are more or less at random, there is no structured allocation multicast address – board input.
- Workstations and display controller with DirectShow Filter Suite installed require re-configuration in case the IP address of the video network changes – thus with a dynamic IP address which changed due to expired lease time (holidays, or the system is down due to annual maintenance work), there are no IP videos any longer – and it might take quite some time to find the reason.

To keep everything "under total control" especially in big installations - it is recommended to do it the hard way and to configure the devices manually.

In case you go for static IP addresses, make sure to have one spare IP address reserved for device replacement. Also in case of more than one CMS server the last octet of the IP address needs to be different.

Within a TransForm N network with multiple CMS servers it must be ensured that the last octet of the CMS server is unique!!

E.g. it is not allowed to have one CMS server IP address set to 10.1.2.22 and one CMS server IP address set to 10.1.3.22!

32.1 Bonding of interfaces

Combining two or more physical network interfaces into one logical device is called bonding on LINUX OS (and teaming on Windows OS).

The objective of creating one logical device is either to increase throughput (enhance bandwidth) or to reduce network downtime (enhance reliability) on the host computer.

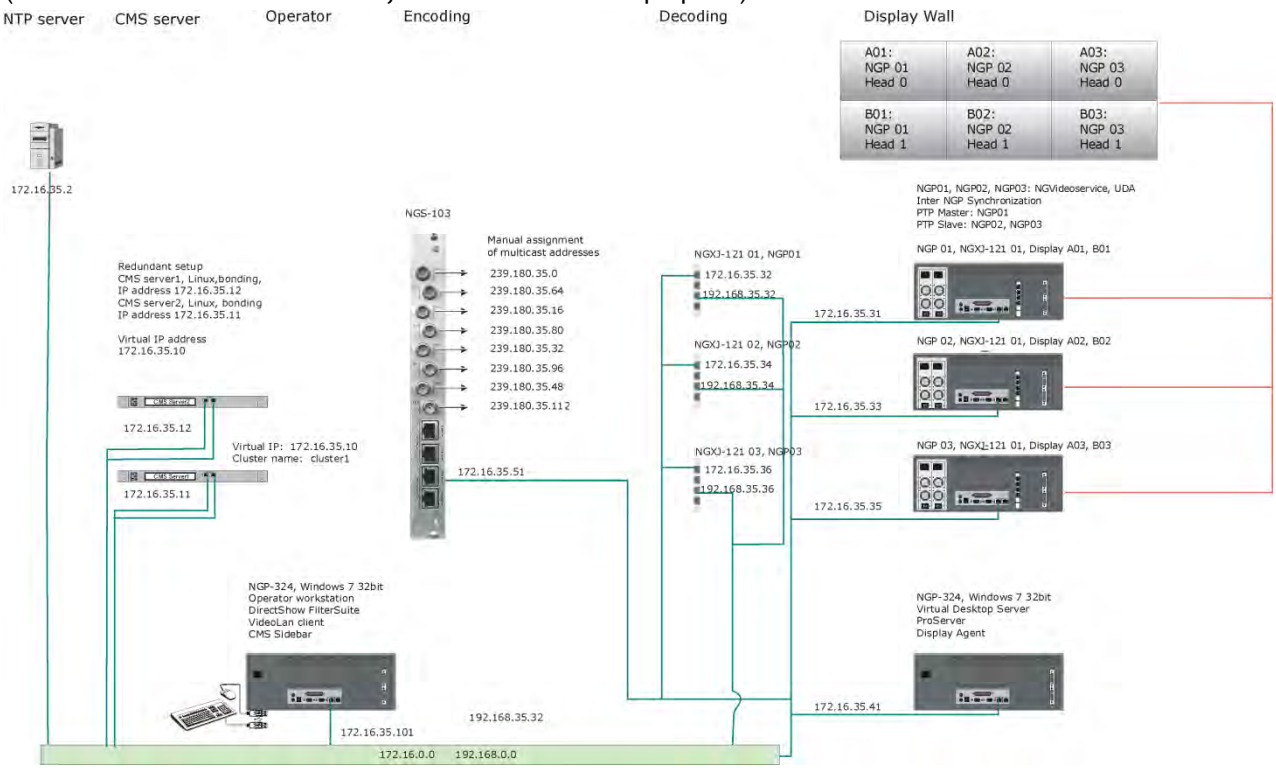
In a Barco TFN setup we always use bonding to enhance connectivity or availability on the host computer

32.2 Static IP addresses and manual multicast address assignment

The following sketch gives an idea how to prepare the setup of a TransForm N system with static IP addresses and manually assigned multicast addresses.

The two network interfaces of an NGXJ-121 decoder card need to be in different subnets!

(The devices and IP addresses are just for demonstration purpose.)



Next to the required IP addresses and/or multicast addresses also the network switches and firewall needs to be configured to allow the required communication flow between the TransForm N components.

32.3 TFN Address usage

32.3.1 Unicast Address Ranges

The following table provides detailed information on TFN's use of protocols and port numbers. It cross-references the destination (where the traffic is target to) with the various sources (where the traffic is initiated). Typically, the destination is reading from a TCP or UDP port, while the source is initiating the connection to the destination's port.

Depending on which LAN the source is located vs. the destination, the necessary routing/firewalling needs to be configured. In the dedicated video LAN scenario, the NICs are identified as Control resp. Video. If the node sits on the office LAN, the Control NIC maps to the office LAN.

Source / Destination	Server	NGP	MGS	Encoders	DisplayAgent	Sidebar	ControlPanel	OpenAPI client	TelnetAPI client	Admin Station	Network Interface	Protocol	Port	Firewalled	Purpose
Server										x	Control Video	TCP	22	n	Diagnostics
					x	x	x	x		x	Control	TCP	80	n	Secure redirection page, SOAP API
											Control	UDP	123	n	NTP
					x	x	x			x	Control	TCP	443	n	TFN web UI, Install/launch clients
	x										Control	TCP	3528	y	jboss-iiop
										x	Control Video	TCP	4563	n	Diagnostics Chainsaw live log viewing
									x		Control	TCP	4585	n	Telnet API
		x	x	x							Control	UDP	5353	n	mDNS
	x										Control	UDP	5405		Auto failover, corosync
	x										Control Video	TCP	5432	y	PostgreSQL replication
											Video	TCP	8008	y	
											Control	TCP	8058	y	Device Mgt eventing

Source / Destination	Server	NGP	MGS	Encoders	DisplayAgent	Sidebar	ControlPanel	OpenAPI Client	TelnetAPI client	Admin Station	Network Interface	Protocol	Port	Firewalled	Purpose
					x	x	x				Control	TCP	8080	n	JNLP
				x							Control Video	TCP	8284	n	Firmware update NGS-D200
											Control	TCP	8285	n	
										x	Control Video	TCP	8443	n	Server configuration
		x									Control Video	TCP	8652	n	UDA configuration (ReST)
										x	Control Video	TCP	8888	n	Secure redirection
					x	x	x				Control	TCP	12345	n	Central logging
					x	x	x				Control	TCP	51071	y	tbd
Sidebar DisplayAgent ControlPanel	x										Control	TCP	23102	n	CMS singleton
NGP										x	Control	TCP	22	n	Diagnostics
										x	Control	TCP	80	n	Landing page
											Control	UDP	161	n	SNMP
										x	Control	TCP	443	n	Configuration
										x	Control	TCP	6000	y	Diagnostics (X11)
											Control	TCP	6150	y	Video Service
	x									x	Control	TCP	8888	n	UDA ReST interface
MGS-101										x	Control	TCP	22	n	Diagnostics
	x							x		x	Control	TCP	80	n	Landing page and WSDL
										x	Control	TCP	443	n	Configuration UI
		x			x	x					Control	TCP	554	n	RTSP
NGS-D101										x	Video	TCP	22		Diagnostics

Source / Destination	Server	NGP	MGS	Encoders	DisplayAgent	Sidebar	ControlPanel	OpenAPI Client	TelnetAPI client	Admin Station	Network Interface	Protocol	Port	Firewalled	Purpose
										x	Video	TCP	80		Configuration
											Video	TCP	2121		Stpd-ftpd
											Video	TCP	8023		Busybox telnetd
		x	x		x	x					Video	TCP	8554		RTSP
NGS-D200										x	Video	TCP	22	n	Diagnostics
										x	Video	TCP	80	n	Landing page
										x	Video	TCP	443	n	Configuration UI
						x					Video	TCP	5900	n	VNC Mouse/keyboard control
		x			x	x					Video	TCP	6060-7000	n	Device control
											Video	TCP	8080	n	???
											Video	TCP	10001	n	???
											Video	TCP	10002	n	???
NGS-Dx20										x	Video	TCP	22	n	Diagnostics
										x	Video	TCP	80	n	Landing page
										x	Video	TCP	443	n	Configuration UI
					x	x					Video	TCP	554	n	RTSP server
						x					Video	TCP	5900	n	VNC Mouse/keyboard control
VNC Server		x			x	x					Control	TCP	5900		VNC screen scraping
Pro Server		x			x	x					Control	TCP	4580		ProSolution screen scraping
Adderlink encoder		x	x			x					Control	TCP	5900		VNC screen scraping
Axis encoder										x	Control	TCP	80		Administration
		x			x	x					Video	UDP	554		RTSP
NTP server	x	x	x								Control	UDP	123		NTP

32.3.2 Multicast Address Ranges

Some of the TFN components are talking to each other via IP multicast. If sources and destinations are sitting in different LANs, the traffic needs to be routed between the LANs. In particular, IGMP needs to be handled. Note that typically all video sources and destinations are on the same LAN (maybe through the second NIC).

It is important to understand that the video streams are not included in this list, because the multicast addresses and ports are subject to encoder configuration.

Source / Destination	Server	Sidebar	DisplayAgent	ControlPanel	NGP	MGS	OpenAPI client	TelnetAPI client	Admin Station	Encoders	Network Interface	Protocol	Port	Purpose
224.0.0.2		x	x		x	x				x	Video	IGMP	n/a	
224.0.0.107					x	x					Video	PTP	319, 320	Precision time synchronization
224.0.0.251	x				x	x				x	Control	UDP	5353	Zeroconf/device detection
	x				x	x				x	Video	UDP	5353	Zeroconf/device detection
224.0.1.129 - 224.0.1.132					x						Video	PTP	319, 320	Ptp monitor
226.1.1.1 – 226.1.1.50	x	x	x		x					x	Video	UDP		NGS-D200 video stream
226.2.22.0 - 226.2.22.255		x	x		x	x					Video	UDP	16000-32000 random	
239.1.1.1 - 239.1.1.8		x	x		x	x					Video	IGMP	n/a	
239.222.222.xxx	x										Control	UDP	43333	ejb3-entity-cache
	x										Control	UDP	45551	ejb3-clustered-sfsbcache
	x										Control	UDP	45566	HAPartition
	x										Control	UDP	45569	Property cache
	x										Control	UDP	45577	Tomcat5 Clustering
239.255.10.10	x				x						Control	UDP	45588	CMS/UDA
239.255.10.11	x				x						Control	UDP	45589	CMS/UDA
239.255.10.15					x						Video	UDP	45619	Video sync

Source / Destination	Server	Sidebar	DisplayAgent	ControlPanel	NGP	MGS	OpenAPI client	TelnetAPI client	Admin Station	Encoders	Network Interface	Protocol	Port	Purpose
					x						Video	UDP	45620	Ins monitor
					x						Video	UDP	45621	Frame lock
					x						Video	UDP	45622	Frame lock
239.255.255.255	x									x	Control	UDP	1900	UPnP/device detection (Axis)
239.255.255.250	x									x	Control	UDP	1900	UPnP/device detection
255.255.255.255	x									x	Video	UDP	48154	NGS-xxx/device detection (Barco)
	x									x	Video	UDP	20034	NGM-164/device detection

32.4 Exceptions

Windows	Linux
On Windows systems (for J2K sources) the following exception needs to be added to the firewall: **%System32%\VideoInfoService.exe** Also the Barco DSFilter Suite COM SDK ExProc Service needs to be allowed: **C:\program files\barco\directshow filter suite\sdk\advancedSDKService.exe** (Windows 7, 64bit) **C:\program files(x86)\barco\directshow filter suite\sdk\advancedSDKService.exe** (Windows 7, 32bit)	On Linux server, the following services need to be opened: • Samba • http • webcache • postgres • ping • dhcp • icmp • dns • ssh • telnet • upnp • multicast

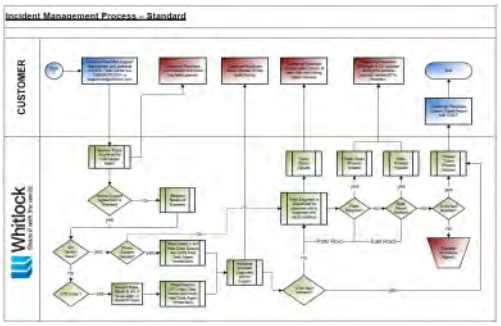
Applying security in the network can be done on various ways by filtering unwanted traffic. Filtering traffic is most effective by allowing only desired packets through and filtering all the rest. It is simply a question of knowing what packets to look for:

- What is the source and destination of the packets as they are passing the firewall?
- What is the transport layer protocol of these packets?
- What are the source and destination ports of the packets?

32.5 Recommendation:

- Configure IGMP snooping in each VLAN and enable querier functionality (use IGMPv2, as IGMPv3 is not supported up to now)
- Configure unicast routing (pre-requisite for multicast routing)
- Configure PIM to route multicast traffic between VLANs; choose PIM sparse mode with fall back to dense mode. Enable PIM on each interface between source and destination VLAN.
- Configure the PIM rendez-vous point (as required for spare mode) either statically or preferably have redundancy for the rendez-vous point by configuring rendez-vous point election, anycast-RP or by using MSDP.

Priority Service Plan
Statement of Work



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Date Revised : 07.18.17

DUNS: 02-389-2201 | TIN: 54-0617014

City of Austin CTECC Integrated Audio Video System

Appendix A - Price Proposal Form

	ROOM	EQUIPMENT COSTS	NON-EQUIPMENT COSTS	AREA SUBTOTAL	ROOM COUNT	TOTAL AV CONTRACTOR COSTS
1	CTECC Operations Floor	$ 259,766	$ 58,629	$ 318,395	1	$ 318,395
2	Main Emergency Operations Center	$ 438,931	$ 123,974	$ 562,905	1	$ 562,905
3	Breakout Room 320B	$ 20,578	$ 16,908	$ 37,486	1	$ 37,486
4	Breakout Room 320C	$ 20,396	$ 15,751	$ 36,147	1	$ 36,147
5	Conference Room 317	$ 20,172	$ 14,858	$ 35,030	1	$ 35,030
ROOM TOTALS						$ 989,963
6	Infrastructure cable, label and testing	$ 40,000		$ 40,000	1	$ 40,000
7	Optional Equipment	$ 134,266	$ 20,382	$ 154,648	1	$ 154,648
OPTIONAL ITEMS TOTALS						$ 194,648
8	Full Systems Warranty and Service Contract Year 1		$ -	$ -	1	$ -
9	Full Systems Warranty and Service Contract Year 2		$ 77,203	$ 77,203	1	$ 77,203
10	Full Systems Warranty and Service Contract Year 3		$ 122,173	$ 122,173	1	$ 122,173
11	Full Systems Warranty and Service Contract Year 4		$ 134,513	$ 134,513	1	$ 134,513
12	Full Systems Warranty and Service Contract Year 5		$ 146,943	$ 146,943	1	$ 146,943
FULL SYSTEMS WARRANTY AND SERVICE TOTAL (NOTE: INCLUDES BARCO AND CISCO HARDWARE AND SOFTWARE WARRANTY RENEWALS, AND CONTINGENCY FUNDS FOR YEARS 3, 4 AND 5)						$ 480,832
GRAND TOTAL WITHOUT OPTIONAL ITEMS (ROOM TOTALS PLUS FULL SYSTEMS WARRANTY AND SERVICE CONTRACT FOR FIVE YEARS						$ 1,470,795
GRAND TOTAL INCLUDING ALL OPTIONAL ITEMS						$1,665,443

City of Austin CTECC Integrated Audio Video System

ROOM: **CTECC Operations Floor**

Whitlock BAFO 7.17.17

ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Mitsubishi Video Wall / LED Cubes (Owner Furnished)	Mitsubishi				$ -
			Top Video Wall	48		$ -
			Bottom Left Video Wall	4		$ -
			Bottom Center Video Wall	4		$ -
			Bottom Right Video Wall	4		$ -
	Whitlock covers these displays under our Priority Service Plan.					$ -
					DISPLAY SYSTEMS TOTAL	**$ -**
AUDIO SYSTEMS	(PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)					
	all costs for audio system are listed under EOC Room 320					$ -
	no annual licensing costs for audio system					$ -
						$ -
					AUDIO SYSTEMS TOTAL	**$ -**
VIDEO SYSTEMS	(PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)					
	Barco Master Quotation	Barco	178996.7492v1-20170317-Ops Floor	1	$ 231,647	$ 231,647
	Wireless Presentation System	Barco	Clickshare Classic	2	$ 1,409	$ 2,818
						$ -
					VIDEO SYSTEMS TOTAL	**$ 234,465**
CONTROL SYSTEMS						
	Integrated Control System	Crestron	Pro 3 and accessories	1	$ 4,378	$ 4,378
	10" Color Touch Panel	Crestron	TSW-1050-B-S	3	$ 1,305	$ 3,915
	Color Touch Panel Tabletop Kit	Crestron	TSW-1050-TTK-B-S	2	$ 136	$ 272
	Color Touch Panel Rackmount Kit			1		$ -
						$ -
						$ -
					CONTROL SYSTEMS TOTAL	**$ 8,565**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors			1	$ 7,172	$ 7,172
	Audiovisual Equipment Rack; 44 RU x 32" Deep	Middle Atlantic	MRK-4431-AV, preconfigured with accessories	3	$ 1,718	$ 5,154
	Audiovisual Equipment Rack; Side Panels, Casters, Fan & Accessories	Middle Atlantic	included with above	2		$ -
	Surge Suppressor/Power Distribution w/Remote On	Middle Atlantic	RLNK-SW815R-SP	3	$ 735	$ 2,205
	Surge Suppressor/Power Distribution w/Remote On	Middle Atlantic	RLNK-SW815R-SP	3	$ 735	$ 2,205
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 16,736**
TOTAL EQUIPMENT COST						**$ 259,766**
	Control System Programming	Subcontract to AV Contractor (ICS+)		1	$ 13,881	$ 13,881
	Project Management	Custom	Project Management	1	$ 3,655	$ 3,655
	Project Supervision	Custom	Testing, commissioning and setup	1	$ 3,225	$ 3,225
	Project Design (25%, 50%, 75% and 100% CD)	Custom	Design and CAD	1	$ 3,840	$ 3,840
	Shipping and Receiving	Custom	Shipping and Receiving	1	$ 5,503	$ 5,503
	Other	Custom	Whitlock Field Installation	1	$ 7,080	$ 7,080
	Other	Custom	Whitlock Rack and Shop fabrication	1	$ 1,800	$ 1,800
	Other	Custom	Whitlock Training	1	$ 900	$ 900
	Other	Custom	Whitlock General and Administrative	1	$ 240	$ 240
	Other	Custom	Whitlock Year One Warranty and Priority Service Plan	1	$ 18,505	$ 18,505
TOTAL NON-EQUIPMENT COST						**$ 58,629**
TOTAL ROOM COST						**$ 318,395**

City of Austin CTECC Integrated Audio Video System			Whitlock BAFO 7.17.17			
ROOM: Main Emergency Operations Center						
ROOM#: 320						
ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Data/Video 1080P 3-Chip DLP Projector; 13,000 Lumens	Christie Digital	D13HD-HS black projector	4	$ 17,345	$ 69,380
	Data/Video Projector Motorized Zoom Lens	Christie Digital	1.5-2.0:1 zoom	4	$ 2,279	$ 9,116
	Video Projector Mount	Premier	PBM-UNI	4	$ 370	$ 1,480
	Flat Panel Interface Bracket	Chief	XCM1U	10	$ 321	$ 3,210
	Flat Panel Ceiling Mount	Existing	Owner Furnished Equipment	10		$ -
	Confidence Montior	Existing	Owner Furnished Equipment	3		$ -
	Custom Projection Screen	**Stewart Filmscreens**	AT3 Screen Masked Mitered Corners, image 76"x 538"	1	$ 18,148	$ 18,148
	HDMI over shielded twisted pair extenders	Crestron	HD-EXT-C	8	$ 544	$ 4,352
					DISPLAY SYSTEMS TOTAL	**$ 105,686**
AUDIO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	Cardframe Audio Digital Signal Processor	QSC	Core 500i with 32 channels of AEC (1 here, 1 in Optional Equipmer	1	$ 4,235	$ 4,235
	Audio Input Cards	QSC	CIML4	6	$ 210	$ 1,260
	Audio Output Cards	QSC	COL4	4	$ 189	$ 756
	Audio Acoustic Echo Cancelling Cards	QSC	included in Core 500i	0		$ -
	IP Phone Input Card	QSC	included in Core 500i	0		$ -
	Ceiling Mounted Speaker System	Existing	Owner Furnished Equipment	1		$ -
	Power Amplification	Existing	Owner Furnished Equipment	1		$ -
	Dual Channel Digitally Encrypted Wireless Microphone Receiver	Shure	ULXD4D	5	$ 2,055	$ 10,275
	Handheld Wireless Microphones	Shure	ULXD2/SM58	8	$ 388	$ 3,104
	Lavalier Microphone with Bodypack	Shure	ULXD1 with WL185	2	$ 448	$ 896
	Wireless Microphone Antenna	Shure	UA844SWB	1	$ 361	$ 361
						$ -
					AUDIO SYSTEMS TOTAL	**$ 20,887**
						$ -
					AUDIO SYSTEMS TOTAL	**$ 20,887**
VIDEO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	Barco Master Quotation (or approved equal)	Barco	178996.7492v1-20170317-RM320	1	$ 245,005	$ 245,005
	SMW-Austin Travis County EOC##SAPCRM##0000015424	Barco Installation	included in line above	1		$ -
	CATV Tuner, HDMI, RS-232, IP Control	Contemporary Research	232-ATSC4	5	$ 761	$ 3,805
	1080P HDMI Video Scalers	Aja	Hi5	4	$ 375	$ 1,500
	Wireless Presentation System	Barco	Clickshare Classic	4	$ 1,409	$ 5,636
	Video Conferencing Codec	Cisco	SX80 , includes one camera and Touch 10	1	$ 17,527	$ 17,527
	Video Conferencing Cameras	Cisco	Precision 60 Camera, one camera with codec, one extra, total 2	1	$ 9,085	$ 9,085
	Multisite Software	Cisco		1	$ 2,489	$ 2,489
	Video Content Sharing Software	Cisco	included with SX80 codec	1		$ -
					VIDEO SYSTEMS TOTAL	**$ 285,047**
CONTROL SYSTEMS						
	Integrated Control System	Crestron	Pro 3 and accessories	1	$ 5,196	$ 5,196
	10" Color Touch Panel	Crestron	TSW-1050-B-S	2	$ 1,305	$ 2,610
	Color Touch Panel Tabletop Kit	Crestron	TSW-1050-TTL-B-S	1	$ 136	$ 136
	Color Touch Panel Rackmount Kit	Whitlock	included in miscellaneous wire, cables connectors	1		$ -
					CONTROL SYSTEMS TOTAL	**$ 7,942**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors			1	$ 12,993	$ 12,993
	Audiovisual Equipment Rack; 44 RU x 32" Deep	Middle Atlantic	MRK-4431-AV configured with all accessories	2	$ 1,718	$ 3,436
	Audiovisual Equipment Rack; Side Panels, Casters, Fan & Accessories	Middle Atlantic	included in rack abovve	2		$ -
	Surge Suppressor/Power Distribution w/Remote On	Middle Atlantic	RLNK-SW815R-SP	4	$ 735	$ 2,940
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 19,369**
TOTAL EQUIPMENT COST						**$ 438,931**

City of Austin CTECC Integrated Audio Video System			Whitlock BAFO 7.17.17			
ROOM:	**Main Emergency Operations Center**					
ROOM#:	**320**					
ITEM #	**DESCRIPTION**	**MANUFACTURER**	**MODEL NUMBER**	**QTY**	**UNIT COST**	**COST**
	Control System Programming		Subcontract to AV Contractor (ICS+)	1	$ 33,006	$ 33,006
	Project Management	Custom	Whitlock Project Management	1	$ 9,095	$ 9,095
	Project Supervision	Custom	Whitlock Project Supervision	1	$ 5,850	$ 5,850
	Project Design (25%, 50%, 75% and 100% CD)	Custom	Whitlock Project Design (25%, 50%, 75% and 100% CD)	1	$ 8,310	$ 8,310
	Shipping and Receiving	Custom	Shipping and Receiving	1	$ 8,843	$ 8,843
	Other	Custom	Whitlock Field Installation	1	$ 27,960	$ 27,960
	Other	Custom	Whitlock Rack and Shop fabrication	1	$ 2,460	$ 2,460
	Other	Custom	Whitlock Training	1	$ 900	$ 900
	Other	Custom	Whitlock General and Administrative	1	$ 360	$ 360
	Other	Custom	Whitlock Year One Warranty and Priority Service Plan	1	$ 18,505	$ 18,505
	Other	Custom	Whitlock Custom User Interface for Laptop Audio Selection	1	$ 8,685	$ 8,685
TOTAL NON-EQUIPMENT COST						**$ 123,974**
TOTAL ROOM COST						**$ 562,905**

City of Austin CTECC Integrated Audio Video System			Whitlock BAFO 7.17.17			
ROOM: Breakout Room 320B						
ROOM#: 320 B						
ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Remove Existing Projector	OFE		1		$ -
	Install Existing Projector from EOC	OFE		1		$ -
	Remove Existing 42" Display	OFE		1		$ -
	New flat panel wall mount	Chief Mfg	XTM1U	1	$ 219	$ 219
					DISPLAY SYSTEMS TOTAL	**$ 219**
AUDIO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	Reconnect Audio Inputs to New Processor in EOC	Whitlock	included	1		$ -
	Reconnect Audio Outputs to New Processor in EOC	Whitlock	included	1		$ -
						$ -
						$ -
					AUDIO SYSTEMS TOTAL	**$ -**
VIDEO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	IP Video Encoders	Barco	Master Quote	1	$ 17,094	$ 17,094
	IP Video Decoders	Barco	included in line above	4		$ -
	Wireless Presentation System	Barco	Clickshare Classic	1	$ 1,409	$ 1,409
						$ -
					VIDEO SYSTEMS TOTAL	**$ 18,503**
CONTROL SYSTEMS						
	Integrated Control System Shared with Main EOC	Crestron	shared	1		$ -
	Control System Touch Panel, 7"	Crestron	TSW-750-B-S with tabletop kit	1	$ 870	$ 870
						$ -
					CONTROL SYSTEMS TOTAL	**$ 870**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	Whitlock	Cables, Connectors, Hardware	1	$ 986	$ 986
						$ -
						$ -
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 986**
TOTAL EQUIPMENT COST						**$ 20,578**
	Control System Programming	Subcontract to AV Contractor (ICS+)		1	$ 10,914	$ 10,914
	Project Management	Custom	Whitlock Project Management	1	$ 595	$ 595
	Project Supervision	Custom	Whitlock Project Supervision	1	$ 375	$ 375
	Project Design (25%, 50%, 75% and 100% CD)	Custom	Whitlock Project Design	1	$ 560	$ 560
	Shipping and Receiving	Custom	Whitlock Shipping and Receiving.	1	$ 494	$ 494
	Other	Custom	Whitlock Field Installation	1	$ 2,280	$ 2,280
	Other	Custom	Whitlock Rack and Shop fabrication	1	$ 180	$ 180
	Other	Custom	Whitlock Training	1	$ 150	$ 150
	Other	Custom	Whitlock General and Administrative	1	$ 60	$ 60
	Other	Custom	Whitlock Year One Warranty and Priority Service Plan	1	$ 1,300	$ 1,300
TOTAL NON-EQUIPMENT COST						**$ 16,908**
TOTAL ROOM COST						**$ 37,486**

City of Austin CTECC Integrated Audio Video System			Whitlock BAFO 7.17.17			
ROOM: Breakout Room 320C						
ROOM#: 320 C						
ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Remove Existing Projector	OFE		1		$ -
	Install Existing Projector from EOC	OFE		1		$ -
	Remove Existing 42" Display	OFE		1		$ -
	new flat panel wall mount	Chief Manufacturing	XTM1U	1	$ 219	$ 219
					DISPLAY SYSTEMS TOTAL	**$ 219**
AUDIO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	Reconnect Audio Inputs to New Processor in EOC	Whitlock	included	1		$ -
	Reconnect Audio Outputs to New Processor in EOC	Whitlock	included	1		$ -
						$ -
					AUDIO SYSTEMS TOTAL	**$ -**
VIDEO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	IP Video Encoders	Barco	Master Quote	1	$ 17,094	$ 17,094
	IP Video Decoders	Barco	included in line above	4		$ -
	Wireless Presentation System	Barco	Clickshare Classic	1	$ 1,409	$ 1,409
					VIDEO SYSTEMS TOTAL	**$ 18,503**
CONTROL SYSTEMS						
	Integrated Control System Shared with Main EOC	Crestron	shared	1		$ -
	Control System Touch Panel, 7"	Crestron	TSW-750-B-S with tabletop kit	1	$ 870	$ 870
						$ -
						$ -
					CONTROL SYSTEMS TOTAL	**$ 870**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	Whitlock	Cables, Connectors, Hardware	1	$ 804	$ 804
						$ -
						$ -
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 804**
TOTAL EQUIPMENT COST						**$ 20,396**
	Control System Programming		Subcontract to AV Contractor (ICS+)	1	$ 9,772	$ 9,772
	Project Management	Custom	Whitlock Project Management	1	$ 595	$ 595
	Project Supervision	Custom	Whitlock Project Supervision	1	$ 375	$ 375
	Project Design (25%, 50%, 75% and 100% CD)	Custom	Whitlock Project Design	1	$ 560	$ 560
	Shipping and Receiving	Custom	Whitlock Shipping and Receiving.	1	$ 479	$ 479
	Other	Custom	Whitlock Field Installation	1	$ 2,280	$ 2,280
	Other	Custom	Whitlock Rack and Shop fabrication	1	$ 180	$ 180
	Other	Custom	Whitlock Training	1	$ 150	$ 150
	Other	Custom	Whitlock General and Administrative	1	$ 60	$ 60
	Other	Custom	Whitlock Year One Warranty and Priority Service Plan	1	$ 1,300	$ 1,300
TOTAL NON-EQUIPMENT COST						**$ 15,751**
TOTAL ROOM COST						**$ 36,147**

City of Austin CTECC Integrated Audio Video System			Whitlock BAFO 7.17.17			
ROOM: Conference Room 317						
ROOM#: 317						
ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Remove Existing Projector	OFE	OFE	1		$ -
	Install Existing Projector from EOC	OFE	OFE	1		$ -
					DISPLAY SYSTEMS TOTAL	**$ -**
AUDIO (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	Reconnect Audio Inputs to New Processor in EOC	Whitlock	included	1		$ -
	Reconnect Audio Outputs to New Processor in EOC	Whitlock	included	1		$ -
						$ -
					AUDIO SYSTEMS TOTAL	**$ -**
VIDEO SYSTEMS (PLEASE SPECIFY Line items, quantities and any associated licensing costs as 1x or annual)						
	IP Video Encoders	Barco (or approved equal)	Master Quote	1	$ 17,094	$ 17,094
	IP Video Decoders	Barco (or approved equal)	included in Master Quote above	4		$ -
	Wireless Presentation System	Barco (or approved equal)	Clickshare Classic	1	$ 1,409	$ 1,409
					VIDEO SYSTEMS TOTAL	**$ 18,503**
CONTROL SYSTEMS						
	Integrated Control System Shared with Main EOC	Crestron	shared	1		$ -
	Control System Touch Panel, 7"	Crestron	TSW-750-B-S with tabletop kit	1	$ 870	$ 870
						$ -
						$ -
					CONTROL SYSTEMS TOTAL	**$ 870**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cable, Connectors	Whitlock	Cables, Connectors, Hardware	1	$ 799	$ 799
						$ -
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 799**
TOTAL EQUIPMENT COST						**$ 20,172**
	Control System Programming	Subcontract to AV Contractor (Must Specify Pepperdash or ICS+)		1	$ 9,500	$ 9,500
	Project Management	Custom	Whitlock Project Management	1	$ 595	$ 595
	Project Supervision	Custom	Whitlock Project Supervision	1	$ 375	$ 375
	Project Design (25%, 50%, 75% and 100% CD)	Custom	Whitlock Project Design	1	$ 560	$ 560
	Shipping and Receiving	Custom	Whitlock Shipping and Receiving.	1	$ 458	$ 458
	Other	Custom	Whitlock Field Installation	1	$ 1,680	$ 1,680
	Other	Custom	Whitlock Rack and Shop fabrication	1	$ 180	$ 180
	Other	Custom	Whitlock Training	1	$ 150	$ 150
	Other	Custom	Whitlock General and Administrative	1	$ 60	$ 60
	Other	Custom	Whitlock Year One Warranty and Priority Service Plan	1	$ 1,300	$ 1,300
TOTAL NON-EQUIPMENT COST						**$ 14,858**
TOTAL ROOM COST						**$ 35,030**

ITEM #	DESCRIPTION		QTY	UNIT COST	COST
Warranty and Service Contract					
*	Full Systems Warranty and Service Contract Year 1 (included)		0		$ -
*	Full Systems Warranty and Service Contract Year 2		1	$ 77,203	$ 77,203
*	Full Systems Warranty and Service Contract Year 3		1	$122,173	$ 122,173
*	Full Systems Warranty and Service Contract Year 4		1	$134,513	$ 134,513
*	Full Systems Warranty and Service Contract Year 5		1	$146,943	$ 146,943
				Full Systems Warranty and Service Contracts TOTAL	**$ 480,832**

Whitlock BAFO 7.17.17

* Full Systems Warranty and Service Contract Requirements:

WHITLOCK COMPLIES WITH ALL FOLLOWING REQUIREMENTS. Please see attached Whitlock Warranty Statement and Priority Service Plan for all details.

- Warranty shall be guaranteed at no additional cost to the City for a minimum of two years from City acceptance date and shall be warranted against any malfunctions or defects in products, parts, software and against faulty services.

Exception: If the manufacturer's warranty is longer for any part(s) provided in service work performed, then the longest warranty shall apply.

- Warranty price for year three, four, five and six shall be based on the agreed upon pricing as stated on Appendix A – Price Proposal Form.
- Any device or component not operating as designed shall be repaired or replaced by the Contractor at no cost t the City in year 1 and 2. Contingency funds shall be identified to cover these devices or components in years 3-5 (ex., year 3-$20,000, year 4- $30,00 and year 5-$40,000). Unused funds shall be rolled over to the following year. WHITLOCK INCLUDES CONTINGENCY FUNDS EXACTLY AS GIVEN IN EXAMPLES. PLEASE SEE ATTACHED WHITLOCK PRIORITY SERVICE PLAN FOR ALL DETAILS.
- Contractor shall provide support that is available 24 hours a day, 365 days a year, with unlimited phone support, and shall dispatch only trained and certified audiovisual field service technicians.
- Throughout the terms of this contract, normal service work hours, after service hours, and emergency service hours shall be provided to the City at no additional cost. Normal hours, after hours and emergency service hours are defined as:
  - Normal working hours are Monday through Friday from 7:45 a.m. to 4:45 p.m.
  - After hours are Monday through Friday from 4:46 p.m. to 7:44 a.m., weekends and official City holidays. http://www.ci.austin.tx.us/help/holidays.htm
  - Emergency service: Is defined as maintenance and repair that addresses a threat to public safety, health or real property. Emergency service shall be available twenty-four (24) hours per day, three hundred sixty-five (365) days a year with a maximum response time of two (2) hours and a four (4) hour on-site response time. Response shall be from the time the call is made to the time the Contractor's resource signs in at the work site.
- Contractor shall provide quarterly preventive maintenance checks and services.
- Contractor shall not charge for labor on repairs performed on-site and in Service Provider depot facilities.
- Contractor shall not charge for transportation of equipment to provide in-shop repair.
- Contractor shall not charge for installation of firmware and software up-dates on system components, as needed, to restore existing system functionality.
- Contractor shall provide consultation on system upgrades.
- Contractor shall keep an updated, detailed inventory of covered equipment.
- Contractor shall keep an updated, detailed repair history log on covered equipment.
- Contractor shall provide recommendations and pricing on replacing owner furnished equipment, as needed. Mark-up to the contractor cost for all related repair materials shall not exceed 15%.
- Contractor shall recommend hot stand-by equipment, outlined in Appendix A – Price Proposal Form that should be on-hand on-site.

Section 0500 Scope of Work, item 4.49 Provide warranty and maintenance on the AV system are incorporated by reference

- Contractor shall keep an updated, detailed repair history log on covered equipment
- *Cost plus 15% on parts and out-of-warranty equipment repairs (?,*
- Contractor shall provide recommendations and pricing on replacing owner furnished equipment, as needed
- Contractor shall recommend hot stand-by equipment, outlined in Appendix A – Price Proposal Form that should be on-hand on-site

ITEM #	DESCRIPTION	Manufacturer	QTY	UNIT COST	COST	
SYSTEM CABLING						
1	Infrastructure Cabling*	Panduit	1	1	$ 40,000	$ 40,000
					SYSTEM CABLING TOTAL	**$ 40,000**

Whitlock BAFO 7.17.17

(Jim to provide additional language on this)

*Provide a not-to-exceed cost for all infrastructure cabling costs.
*Note that all dual NICs shall be cabled and included in this cost.
*Include costs for materials, labor, installation, testing, commissioning and any required permitting.

City of Austin CTECC Integrated Audio Video System — **Whitlock BAFO 7.17.17**

ROOM: Optional Equipment

ITEM #	DESCRIPTION	MANUFACTURER	MODEL NUMBER	QTY	UNIT COST	COST
DISPLAY SYSTEMS						
	Data/Video 1080P Laser Phospor Projector 6000 Ansi	Christie	DHD700-GS White, 1 DLP, laser phosphor, 1920x1080,	3	$ 9,291	$ 27,873
	Data/Video Projector Motorized Zoom Lens	Christie	1.52-2.92:1 zoom	3	$ 2,011	$ 6,033
	ceiling mount for projector	Chief Manufacturing	LTM1U	3	$ 153	$ 459
	Data/Video 1080P Laser Phospor Projector 12000 Ansi	Epson	ProL1500U with standard Lens	4	$ 14,914	$ 59,656
	NOTE: If Epson is purchased, Christie D13HD-HS and Lens would not be purchased	Christie	D13HD-HS and 1.5-2.0 zoom lens	-4	$ 19,624	$ (78,496)
	65" Flat Panel Display 1080P, 24-7	Samsung	DM65E, Commercial LED LCD with 24/7 rating, price	12	$ 2,234	$ 26,808
	mount for 65" display	Chief	LTM1U	2	$ 189	$ 378
					DISPLAY SYSTEMS TOTAL	**$ 42,711**
AUDIO SYSTEMS						
	None			1		$ -
					AUDIO SYSTEMS TOTAL	**$ -**
VIDEO SYSTEMS						
	High Definition Document Camera HDMI Output	Elmo	P100HD	4	$ 3,354	$ 13,416
	IP Video Streaming to Tablets and Phones	Barco	Master Quote	1	$ 17,877	$ 17,877
	Document Camera (1080P 30fps HDMI 12X Optical Zoom)	Elmo	P100HD	3	$ 3,354	$ 10,062
					VIDEO SYSTEMS TOTAL	**$ 41,355**
HOT STAND-BY EQUIPMENT						
	Core Audio DSP backup	QSC Audio	Core 500i	1	4,235.00	$ 4,235
	critical spare of TFN 8CH AV Input Node	Barco	R9834900_AV8	1	4,071.00	$ 4,071
	critical spare of TFN 1CH DVI Input Node	Barco	R9848900	1	1,684.00	$ 1,684
	critical spare of TFN NDN-210 Dsiplay Node Pro	Barco	R9821000B	1	4,957.00	$ 4,957
	Critical spare of WSM-100 Single Display Controller Wn7 US	Barco	R9810001B	1	3,013.00	$ 3,013
	Critical Spare of TFN NDN-210 Display Node Lite	Barco	R9821005B	1	3,965.00	$ 3,965
	Critical Spare of WSG-100 Web Streaming Starter Package	Barco	R9835010B	1	17,877.00	$ 17,877
	Critical Spare of NGS-D200 Lite	Barco	K9303500A	1	3,043.00	$ 3,043
	Critical Spare of NGS-D320 Lite	Barco	K9303079A	1	1,667.00	$ 1,667
	CMS Enterprise Server configured as backup	Barco	R7600125	1	3,685.00	$ 3,685
					HOT STAND BY EQUIPMENT TOTAL	**$ 48,197**
MISCELLANEOUS EQUIPMENT AND SYSTEMS						
	Miscellaneous Wire, Cables, Connectors	Whitlock	Miscellaneous cables, connectors, hardware	1	2,003.00	$ 2,003
					MISCELLANEOUS EQUIPMENT AND SYSTEMS TOTAL	**$ 2,003**
CONTROL SYSTEMS						
	None					$ -
					CONTROL SYSTEMS TOTAL	**$ -**
TOTAL EQUIPMENT COST						**$ 134,266**
	Control System Programming	Subcontract to AV Contractor (Must Specify Pepperdash or ICS+)		1		$ -
	Project Management	Custom		1		$ -
	Project Supervision	Custom		1		$ -
	Project Design (25%, 50%, 75% and 100% CD)	Custom		1		$ -
	Shipping and Receiving	Custom	Whitlock Shipping and Receivingn	1	$ 882	$ 882
	Other	Custom	Whitlock Technology Adoption Services. Additional custom training and Cloud Based Training Videos.	1	$ 19,500	$ 19,500
TOTAL NON-EQUIPMENT COST						**$ 20,382**
TOTAL ROOM COST						**$ 154,648**

Whitlock Training Clarification Questions
July 20, 2017
Whitlock Responses in RED. NOTE: Whitlock received this document on August 3, 2017, and responded to it on August 4, 2017.

1. In the Memo dated July 10, 2017, please clarify and point to where this is included in the pricing proposal:
    a. "The CTECC RFP stated that the customer wanted a "professionally edited video" of the Whitlock and Barco provided customer training sessions. The RFP goes into great detail about the quantity of training. The RFP specifically requests 80 hours of onsite training by Barco. **Whitlock has included 20 days of Barco being onsite in our pricing proposal."** WHITLOCK RESPONSE: Barco included 20 days of Barco onsite support in the Master Quote developed by Barco for Austin CTECC and provided to all proposal responders who requested it. This Barco Master Quote pricing, which includes a total of 20 days of Barco man day's onsite, is shown in our pricing proposal on the first line of the Video Systems section on the five room tabs: CTECC Operations Floor, Main EOC Room 320, Room 320 B, Room 320C, and Room 317. Please note that there is a TOTAL of 20 man days of Barco personnel onsite included in the entire proposal.

    b. What do these 20 days include: training only or configuration services and programming? WHITLOCK RESPONSE: Barco describes these services as part number 10049, Installation and on-site training. So, in answer to your question, these 20 days certainly include training and configuration. Whitlock is not sure what the word "programming" means as used in your question above. Whitlock is providing Crestron programming and QSC programming through ICS+ and Whitlock internal resources. We are not certain what the word "programming" would mean in the context of the Barco CMS and TransForm N portion of this work.

2. For the On-Demand training video subscription. Can you explain why we wouldn't own a copy of the video? WHITLOCK RESPONSE: Whitlock has priced the On-Demand Training video subscription using our Cloud Based Training (CBT) model, where the training videos are available via an annually renewable subscription. Whitlock can also provide pricing upon request for the City to purchase the video.

3. Does Whitlock have a training team that they use with these types of installations, or would the trainers come from the actual project team? WHITLOCK RESPONSE: Yes, Whitlock has a specialized training team, which we call Technology Adoption Services (TAS). A small amount of the training would also be provided by the actual project team.

4. Would you all be inclined to do a "not to exceed" $XX,XXX for training to be determined and scoped at a later date? Whitlock Response: Whitlock would be inclined to do it this way, if that is the City's preference. Whitlock's Training Responses to date have been based on the RFP requirement for 80

hours of onsite training, which is ten days of 8 hours a day training. In Whitlock's opinion, that is more training than is truly necessary.

5. Can you price the following items? (Note: Each would need to be priced, one training each specifically for EOC and one specifically for CTECC Operations)
    a. End User Training
        - Easy "cheat sheet"
        - How to manual for end users
        - Lesson plan for train-the-trainer
    b. Power Users (approximately 12 EOC and 12 CTECC Ops)
        - Whitlock trains on system
        - High Level Troubleshooting
        - Instruction manual for Power Users
        - Lesson plan for train-the-trainer
    c. Admin Users (approximately 4)
        - Written Administrative Guide
        - Detailed Training – troubleshooting, leveraging the system, system details, how to make system changes, any Barco-specific training needed

WHITLOCK RESPONSE: Whitlock does not currently offer this sort of "a la carte" pricing that is requested.

6. Would our training team be able to video any of the sessions **and/or** use the materials to create computer-based training for any of the three levels of training materials? WHITLOCK RESPONSE: Yes, and yes.

Deployment**Plan**

Prepared for Austin CTECC - RFP 5600 PAX0141 for Audio Visual Equipment

Submitted To:

Sai Xoomsai Purcell, Senior Buyer Specialist

The City of Austin

Municipal Bldg., 124 W. 8th St., Room 308

Austin, TX 78701

Submitted By:

Craig Orris Taylor, Senior Account Executive

Whitlock/Dallas Fort Worth

taylorc@whitlock.com

972-815-1126

3/30/2017

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March 30, 2017

The City of Austin
Sai Xoomsai Purcell
Senior Buyer Specialist
Municipal Bldg., 124 W. 8th St., Room 308
Austin, TX 78701

Dear Ms. Purcell:

I wanted to thank you personally for considering Whitlock for this high profile and innovative project. Our teams are excited, and we have pulled together our best to prepare this AV Development Plan for your review. I hope you will find it to be thorough and thoughtful; we view it as the perfect roadmap to make this engagement successful.

In addition to the outward communication and coordination, we have done a great deal of internal planning and discovery to understand The City of Austin We plan to utilize best practices for consistent staffing, workmanship, safety and collaboration to deliver a high quality experience.

Much more than preparing a proposal, pricing and qualifications, Whitlock realizes the value of this project, not only to The City of Austin ,but to the Austin landscape and economy. I have been involved every step of the way in our responses to your organization and look forward to next steps.

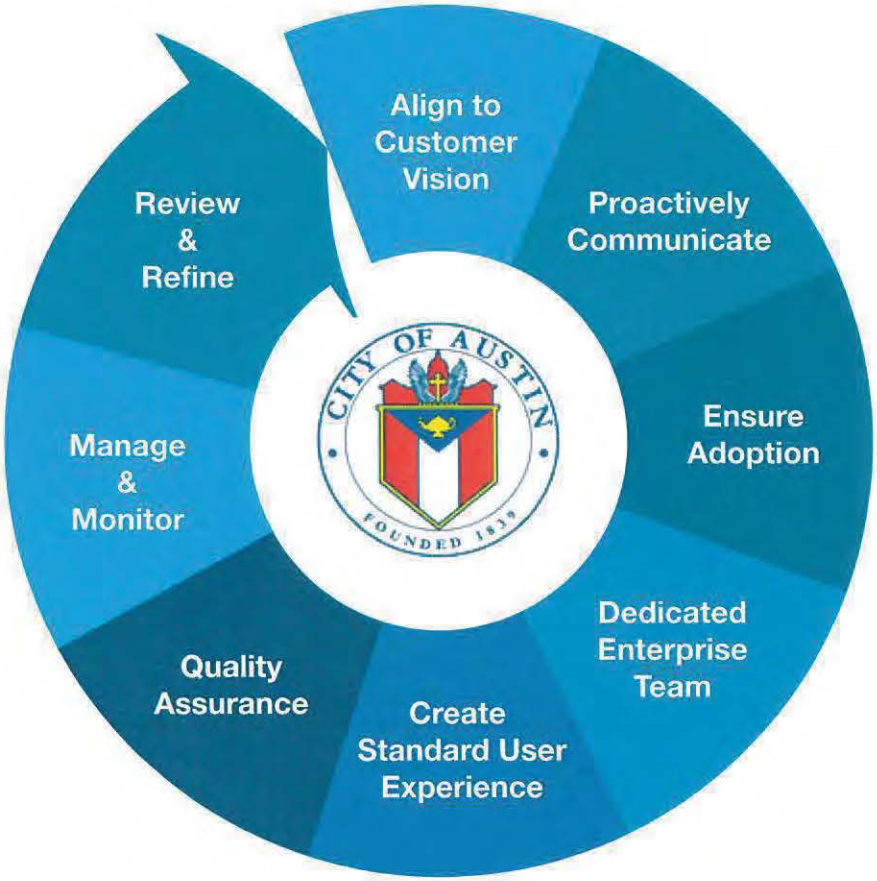
Please feel free to reach out to me directly with any questions. I am sincerely looking forward to next steps.

Best Regards,

Craig Orris Taylor
Key Account Manager
Whitlock

Enterprise**Delivery**Model

Whitlock's Enterprise Delivery Model is an eight step process that shows how we manage Projects and Enterprise Customer Relationships to ensure **Quality** and **Consistency.**



Enterprise Delivery Model

1. **Align to Customer Vision**
   Technology Roadmaps
2. **Proactively Communicate**
   Project & Program Management Plan
3. **Ensure Adoption**
   Utilization, ROI by Design, Training (Cloud)
4. **Dedicated Enterprise Team**
   Experienced SMEs & Customer Centric Team
5. **Create Standard User Experience**
   Drive Satisfaction, Efficiency & Ease of Use
6. **Quality Assurance**
   Ongoing through Design, Pre-Staging & Implementation
7. **Manage & Monitor**
   Blend On-Site & Remote Managed Services
8. **Review & Refine**
   QBRs: Metrics, CSI, Adoption, Service

Whitlock

VisionAlignment

We believe it's crucial to start any new engagement with a clear focus on the Customer's Vision. That vision sets the stage for the desired technology and business outcomes, and is the foundation of how we design our solutions and measure success. Some key points for this City of Austin CTECC implementation:

Project Overview:

- The facility is truly mission-critical.
- Many different groups use the facility.
- The systems installed must be up and running within five minutes when needed.
- The systems must be easy to use.
- The systems must be reliable and long-lasting.
- When service is needed, rapid response is an absolute requirement.

Our alignment to The City of Austin*'s Vision will include:*

- Partnering with The City of Austin to be a **leader** in the adoption of technology to drive innovation, collaboration and efficiencies
- Creating a **world-class** location that fosters engagement with employees, customers and partners
- Developing technology standards and helping to create an enterprise-wide, consistent **customer experience**
- Leading with **Safety**, and helping The City of Austin protect the Environment and reduce its Carbon Footprint

StaffingStrategy

- Assign Dedicated Enterprise Team to ensure consistent alignment to customer standards, culture and expectations – regionally, nationally and globally
- Engage National Resources & Specialists for Standards, Oversight & Account Strategy
- Organize Delivery Teams by System or Room Types to Drive Efficiencies

TeamBios

We match the best resources to our customers based on experience and scope of a project. Based on what we know about you, here are the people we would like you to get to know at Whitlock.

Your Enterprise Team

John Bagnell, Regional Vice President, West

John Bagnell leads Whitlock sales and operations from Chicago to the West Coast, including fast-growing markets in Illinois, California, Texas and Washington state. He has served as a regional director and now Regional Vice President for the company, responsible for sales growth, customer satisfaction and profitability for Whitlock's western US teams. With more than 17 years of experience in unified communications, telecommunications and IT, John's expertise encompasses valuable solutions sales and relationship management for large enterprises, including high tech, legal and energy vertical customers. Before Whitlock, John delivered great results in sales leadership roles for AT&T, XO Communications, Cogent and Arkadin/Conference Plus.

Alyson Horn, Regional Director

Alyson Horn, a 25-year veteran in the audio and video solutions market, is the Regional Director for Whitlock's South Central, Texas operations, which includes Dallas, Austin and the surrounding areas. Her tenured career has entailed leading and driving technology sales efforts for enterprise customers across the Southern U.S. and globally. She has strong customer and partner relationships and a proven track record of ongoing, profitable success. Alyson's strengths include growing revenues, increasing profitability and leading cross-functional teams that deliver superior results. As a Regional Director for

Whitlock, she focuses on sales and business development, operations management and cultivating talent across the South Central region. Alyson is also an advocate for maintaining the Whitlock culture and values.

Craig Orris Taylor, Key Account Manager

Craig Orris Taylor joined Whitlock's Dallas, Texas office in 2000 as an Account Manager. He has over 20 years of experience in the audiovisual industry. Craig has since been promoted to Key Account Manager and has completed projects for multiple high-profile clients, including the Texas Department of Public Safety, Verizon Wireless, New Mexico Department of Transportation, Southwest Airlines and City of Austin. His knowledge of control room technology is unsurpassed and he has been referred to as one of the top five specialists in the country. Craig graduated from Harvard University with a Bachelor of Arts in Sociology and also earned a Master of Business Administration (MBA) from Harvard Graduate School of Business.

Brian Dearsman, CTS, Regional Director of Operations

Brian joined Whitlock in Dallas in 2000, and relocated to our Houston office in 2004 to help expand our regional presence. As Regional Director of Operations, Brian is responsible for the pre and post sales technical and operational support teams and processes in support of Whitlock's sales teams to ensure exceptional customer experiences. He is also involved in recruiting, training and managing various technical disciplines and administrative resources. Brian has been in the audiovisual industry since 1996, and has excelled in his management and oversight of very large, high profile audiovisual projects. Along with his CTS accreditation from InfoComm, Brian has received certified training with multiple manufacturers, including AMX, Biamp, Barco, Christie, Clarity, ClearOne, Crestron (DMC-E-4K certified), Extron, Vista Systems, Projection Design, Cyviz, and Digital Projections as well as many others.

Kevin Haws, Technical Operations Manager

Kevin Haws is the Technical Operations Manager for the Whitlock Dallas, Texas office. He is responsible for management of the technical operations team (Project Managers, Enterprise Program Managers, Technicians, Quality Assurance Personnel, etc.). Kevin manages the operations team to ensure strategic project execution and impeccable project delivery. He is an industry veteran bringing over 22 years of expertise in the IT/VTC/AV systems integration industry. Kevin has been engaged in various AV systems designs and systems integration projects with clients, such as Baker Hughes, Toyota, FedEx, BNSF Railway, Jones Day and Conifer. He holds a myriad of industry specific technical certifications, including Cisco VTC, Cisco Data / Network Systems, Crestron Electronics, AMX, Biamp, Polycom and many others.

Richard Wong, Enterprise Program Manager

Richard Wong is part of Whitlock's Enterprise Resource Group where he is responsible for the day to day oversight and management of company resources for defined enterprise relationships, and for ensuring superior customer service experience. He has been in the industry for over 11 years, with numerous assignments across multiple areas of IT delivery and primarily VTC/AV operations. Richard has managed and performed oversight on installations of sophisticated teleconferencing, videoconferencing and communications systems for corporate boardrooms, auditoriums and training facilities with next-gen AV and cutting edge technology. He has been integral in the budget, program development, design, procurement and implementation of many projects ranging from small scale setups to multi-million dollar capital investments and served as point of contact with multiple clients. Richard received a Bachelors degree in Computer Engineer & Technology from the University of Houston and is working towards obtaining his CTS and PMP certifications.

Paul Brubaker, National PMO Manager

As National PMO Manager, Paul manages the Enterprise Program Management Team and oversees the development and management of corporate best practices for project and program management. Paul also works closely with Whitlock's National Training Manager and Human Resources Group in the development of the onboarding and training programs for project and program managers. Paul helped co-develop and teaches Whitlock's Enterprise account teams Whitlock's on running the Whitlock Enterprise Delivery Model.

Paul continues to provide program management for several of the company's key enterprise accounts as well as oversight in the delivery of high-value, high-profile projects. Paul's efforts in these areas were rewarded with Whitlock's "2014 Employee of the Year" award and "2015 President's Club" award. He is a member of the Project Management Institute and has earned his "Project Management Professional" (PMP) certification. Paul has also received certification as a "Certified Technology Specialist" (CTS) from InfoComm International. He has a Bachelor of Science in Technical Management from DeVry University and a Graduate Certificate in Project Management from Keller Graduate School of Management. Paul Brubaker is based out of Whitlock's Atlanta, GA office and has over 27 years of experience in the audiovisual industry.

Phil Dusold, CTS, National Design & CAD Manager

Phil Dusold is based Whitlock's Dallas, TX office location and brings over 29 years of experience in the AV/IT/UC industry to his role. He oversees the management and development of Whitlock's national standards and best practices for systems design & CAD (computer aided drafting). Phil also partners with Whitlock's Human Resources group and National Training Manager to develop and launch our onboarding/training/development paths for our Designers, Solution Architects and CAD Technicians, and oversees the Design and CAD technical steering committees and provides updates to each team. He works with Whitlock's Managed Services and Professional Services teams to help educate and train our Account Executives in proactively selling Whitlock support services. Phil has worked closely with some of the Company's key customers, including Amazon, AIG, Apple, Capital One, eBay, Franklin Templeton, Juniper Networks, Tesla Motors, Penn State University, Charles Schwab and Toyota. He has completed multiple certification and training courses with many of the industry's leading manufacturers and organizations, such as Crestron, Extron (EAVA), Polycom, AMX, Biamp (Audia certified), BSS, Syn-Aud-Con and others. Phil has also received accreditation as a "Certified Technology Specialist" (CTS) from InfoComm International. Phil is a graduate from The University of Texas at Arlington and holds a Bachelor of Arts Degree in Communications (Radio/Television/Theater).s

Michael Bencivenga, CTS, Project Manager

Michael Bencivenga is a Project Manager of Whitlock's Austin, TX office location, with more than 10 years of experience in the audiovisual industry. He has been an integral team member on many projects for clients including Hess, Dell, Whole Foods Market, St David's Medical Center, Microsoft, Tesoro, the DEA and the Texas Supreme Court. Michael has completed multiple training and certification courses for manufacturers, including AMX Programmer Level 1, Crestron Programmer Level 1, Crestron (DMC-E certified), Tandberg Certified Engineer Level 1, Biamp Audia and Tesira, ClearOne Certified Technical Specialist and Revolabs Certified Specialist. He has received accreditation as a "Certified Technology Specialist" (CTS) from InfoComm International, the premier international trade association for the professional audiovisual communications industry. He has completed the Syn-Aud-Con 4-day Sound Reinforcement for Designers course and the OSHA General Industry Safety and Health 10-Hour course. Michael holds a Bachelor of Arts in Mass Communications from Texas State University.

Tyler Williams, CTS, Project Manager

Tyler Williams is a Project Manager in Whitlock's Austin, TX office location. He serves as the customer liaison that ensures that all of their project expectations are met in regards to deadlines, product delivery, implementations, commissioning and service contracts. Tyler is also responsible for making sure

that Whitlock is delivering the "best value" levels of audiovisual integration services to our customers. He has worked closely with a number of the Company's high profile accounts, including Apple, IBM, Dell, Solarwinds and VMWare. Tyler has completed many training courses with manufacturers, such as Biamp, and has received recognition as a "Certified Technology Specialist" (CTS) with InfoComm International. He received his B.S. from Sam Houston State University in Construction Management.

Vern Etheridge, ITIL, Service Solutions Manager

In the role of Service Solutions Manager (Western Region) for Whitlock's Managed Services department, Vern Etheridge is responsible for working with our Account Executives, Director of Managed Services Solutions and the Director of Managed Services Operations in designing service plans that best meet customers' on-going support needs. He also works closely with the Regional Directors in training and developing sales and operations personnel to be knowledgeable of the Whitlock Managed Services Catalog. Over the past 15 years, Vern has been devoted to Managed Services, first as the Regional Service Manager for the Western region of Whitlock (comprising of 6 different offices) where he was responsible for 14 field service technicians, managing the day to day operations, training and management of those personnel. Vern served in both the United States Marine Corps and the United States Army from 1974 through 1992. He holds an Associate Degree from Central Texas College in Radio, Television and Film and holds his Information Technology Infrastructure Library (ITIL) Foundations certification.

Matt Hornbuckle, CTS, Senior Systems Designer

Matt Hornbuckle is a Senior Systems Designer based in Whitlock's Dallas, TX office location with 20+ years of experience in the audiovisual industry. He has completed work for various Whitlock's Enterprise customers in the area, including Lockheed Martin, Nortel Networks, Verizon, Alcon Labs, AT&T, Kentucky Department of Transportation, Dallas Emergency Operations Center, Southwest Airlines and Los Alamos National Laboratories. Matt has completed training and certification courses with many of our industry's leading manufacturers, including, AMX, Barco, Biamp (Audia and Tesira certified), Christie, Clarity, Crestron (DMC-D-4K), Digital Projection, Extron, Mitsubishi and Jupiter. He has also received accreditation as a "Certified Technology Specialist" (CTS) from InfoComm International.

JD Hearen, CTS-I, Lead Technician

JD Hearen has over 15 years of experience in the audiovisual industry and is a Lead Technician based in Austin, TX. In this role, he oversees project installation activities while ensuring all installation goals and expectations are met and exceeded. JD has managed projects for clients such as the Wheeler Opera

House, Zurich Insurance Broadcast Studio, University of Colorado and Apple Inc. He has received accreditation as a "Certified Technology Specialist - Installation" (CTS-I) from InfoComm International and also holds his OSHA 30 certification.

Larry Fox, CTS, Quality Assurance Specialist

Larry Fox is a Quality Control Specialist based in Austin with over 22 years in the experience in the IT/AV industry. Over his career he has been involved in many aspects of the AV industry from being a lead technician, design engineer and doing AV consulting. While at Whitlock, Larry has supported many projects including IBM, St. Edwards University and the Housing Authority of Central Texas. He holds a degree in electronic engineering and has received accreditation as a "Certified Technology Specialist" (CTS) from InfoComm International.

Michael Bales, CTS, QCC/Staging Manager

Michael Bales is a QCC/Staging Manager in Austin, TX more than 21 years of direct industry experience. In this role, he oversees project installation activities while ensuring all installation goals and expectations are met and exceeded. Michael has completed projects for clients such as Alcoa, AMD, AT&T Conference Center & Hotel, San Angelo State University, IBM, E.R.C.O.T. and Dell. He has an Associates' Degree from Southwest School of Electronics. Michael has also received accreditation as a "Certified Technology Specialist" (CTS) from InfoComm International, the premier international trade association for the professional audiovisual communications industry.

Monique Peters, Customer Experience Manager

Monique is a Customer Experience Manager based out of Whitlock's office in Dallas, TX. She has over 10 years of experience working in a managerial role and is responsible for the supervision of regional personnel, implementation and training of best practices in the areas of customer support, inventory control, administration and coordination. Monique maintains staffing levels and training to ensure responsiveness to both the external and internal Whitlock customers. She also manages the national AVNOC Service Center in addition to oversight and coordination of all customer facing roles in our Dallas, Austin and Houston locations. Monique has worked directly with many of Whitlock's Enterprise clients, such as Capital One, Aetna, Shell Oil, JP Morgan Chase and Fidelity Investments. She holds a Bachelor's degree in Communications from Cal State University San Marcos.

Kristie Cantu, Customer Support Representative

Kristie Cantu is a Customer Support Representative in our Austin, Texas office. She has a 10 year tenure with Whitlock and a total of 18 years in the industry. Kristie has become an invaluable,

consistent and trusted point of contact for our best customer relationships, while providing excellent coordination and communications related to all aspects of Whitlock's sales, project management and other support personnel cycles. She maintains trusted relationships with a breadth of manufacturers to facilitate special pricing, expedited processing and avoid surprises and project interruptions and makes the internal processes seamless to the customer. Kristie has worked closely with a number of Whitlock's key customers, including IBM, St. Edward's University, Rice University, Texas Department of Public Safety and University of Texas.

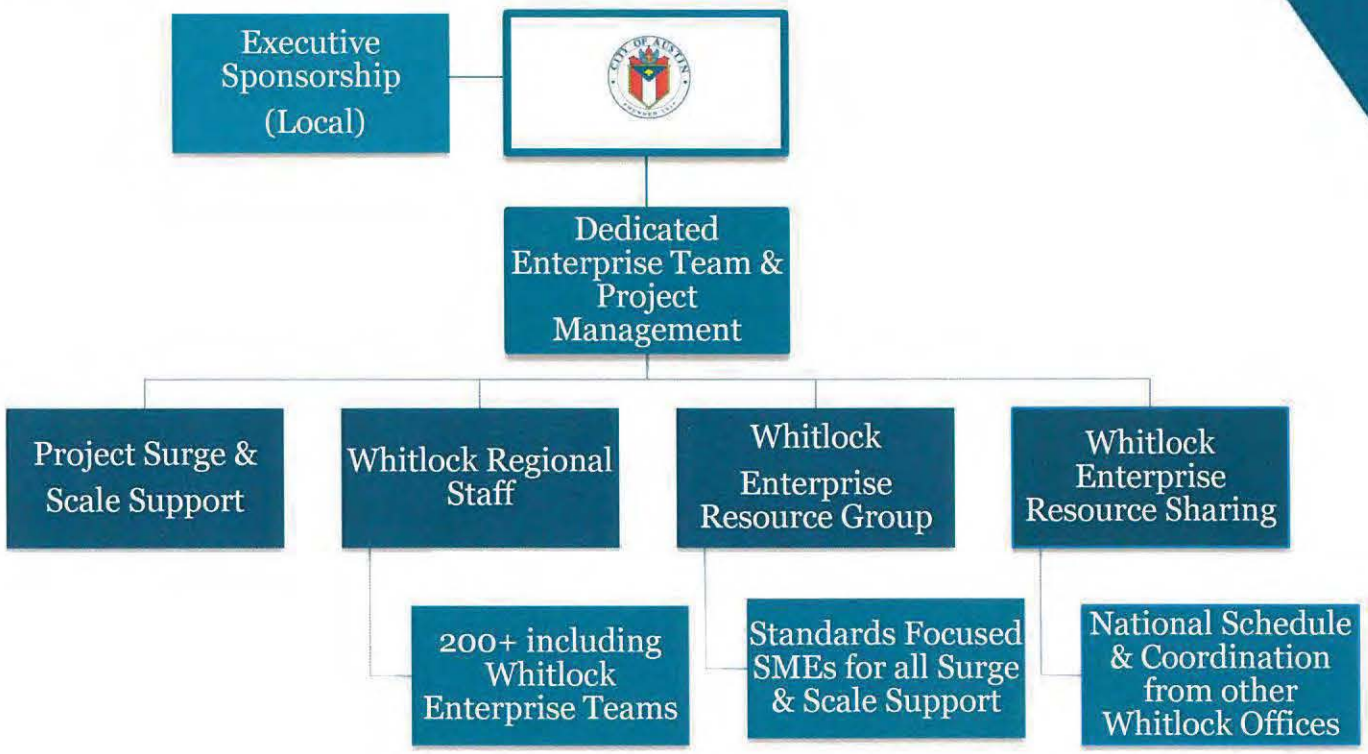
Mallory Hayes, Project Accounting Supervisor

Mallory Hayes is a Project Accounting Supervisor based in Whitlock's Corporate Headquarters in Richmond, VA with an extensive financial background. As a Project Accounting Supervisor, she oversees a team of Project Accountants that report directly to her. In this role, Mallory is responsible for the accurate initial setup, document review, approval and monitoring of the progress of projects. She is also in charge of project auditing and variance reconciliation and providing resolution throughout the projects progress, including project completion and ensuring timely project billing and payment. She also reviews final contracts, oversees the data entry of each project and maintains all project-related records. Mallory earned her Bachelors degree in Business with a dual concentration in Accounting and Finance from Old Dominion University in Norfolk, VA.

Enterprise CAD Team

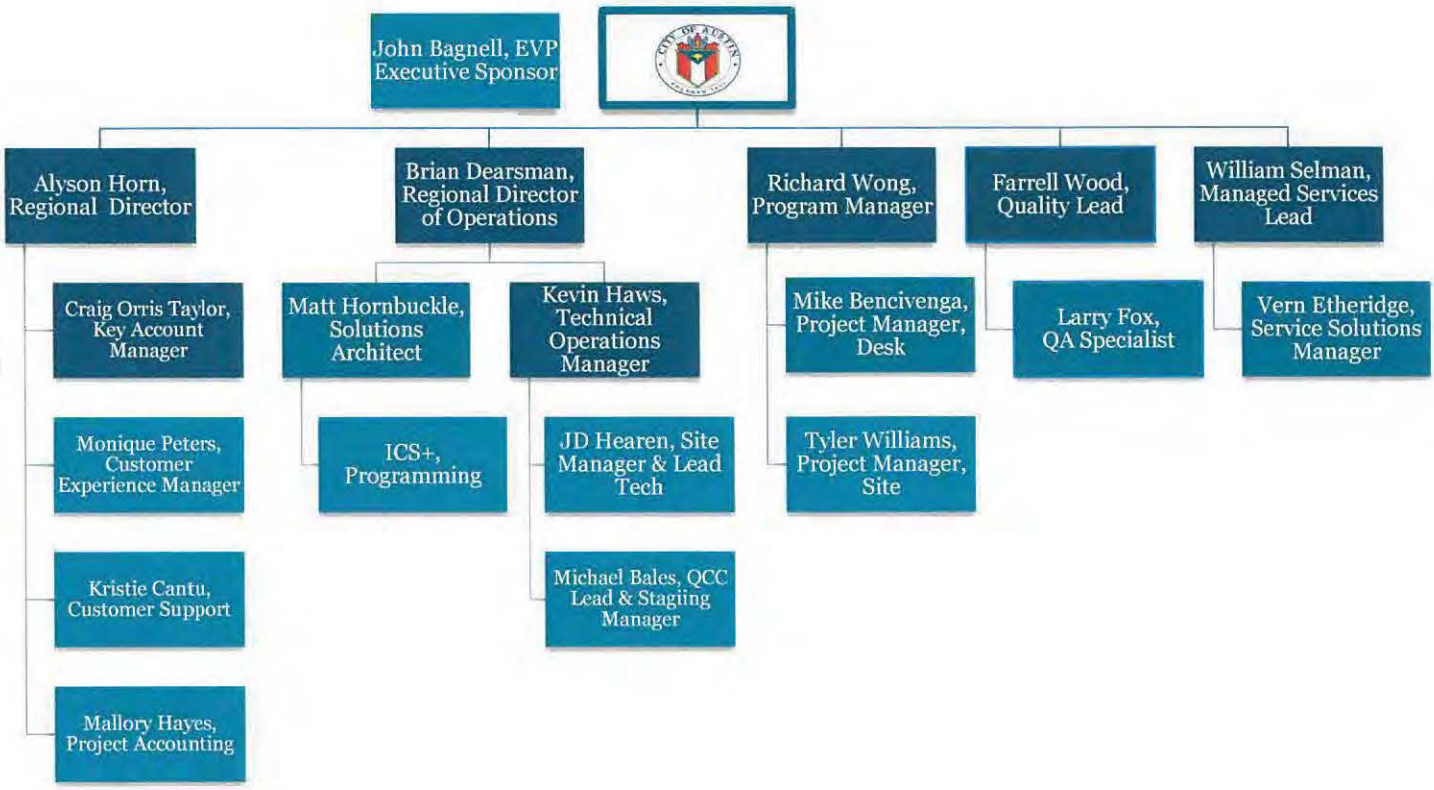
Whitlock's Enterprise CAD Resource team is comprised of approximately 25 CAD and Senior CAD Technicians. Oversight is provided by a CAD Manager, Enterprise CAD Lead, Enterprise Resource Manager and National Design and CAD Manager. This centralized team follows Whitlock's Enterprise CAD standards and also shares best practices, workloads and databases to produce CAD drawings for customer accounts and projects. Through the centralized model, we've gained the ability to scale more quickly for our Enterprise customers. Additionally, this team participates in a four year training program utilizing internal and manufacturer training.

Staffing**Approach**



Enterprise**Team**

Whitlock has assigned a consistent core team to focus on all The City of Austin - related deliverables, regardless of scope, size and location. This team is listed below. There are many additional Enterprise and local resources supporting The City of Austin on an as-needed basis. For more details on our team, please refer to the section titled **Team Bios**.



Enterprise**ResourceGroup**

Whitlock has invested in an Enterprise Resource Group:

- Subject Matter Experts on Enterprise, not tied geographically to a Whitlock Region
- Design, Program/Project Management, QA, Programming
- Experienced in Standards Development & Deployment (Centralized Team of 20+ CAD Technicians)
- Ensuring Consistency & Innovation
- Providing Surge Support – Enterprise Customers

Whitlock views workload on a National scale:

- National Schedule to distribute Whitlock resources across our best customer opportunities
- Maximize consistency by utilizing Whitlock trained resources
- Protect investments in our most talented resources, regardless of regional peaks and valleys in workload

Schedule**Management**

Installation schedule showing estimated start and finish dates for procurement, overhead rough-in, staging, installation, final testing / commissioning and target completion.
See Tab 7 for Gantt Chart style Project Schedule for this Project for City of Austin.

Rooms	Procurement		Staging at Whitlock QCC		Installation at Customer Site		Final Testing & Commissioning		Acceptance Testing		Training	
	Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish	Start	Finish
MAIN EOC	W18/1	W21/5	W22/1	W22/5	W23/1	W25/3	W25/3	W27/1	W27/2	W27/4	W28/1	W28/3
Room 317	W18/1	W21/5	N/A	N/A	W25/3	W25/3	W27/1	W27/1	W27/4	W27/4	W28/3	W28/5
Room 320B	W18/1	W21/5	N/A	N/A	W25/3	W25/3	W27/1	W27/1	W27/4	W27/5	W28/5	W28/5
Room 320C	W18/1	W21/5	N/A	N/A	W25/3	W25/3	W27/1	W27/1	W27/5	W27/5	W29/1	W29/1
Operations Floor	W18/1	W21/5	W22/5	W23/3	W26/2	W26/2	W27/1	W27/2	W27/5	W28/1	W29/1	W29/2

Estimated Field Resources Per Week

Resource schedule showing estimated peak resources to be deployed to site during specific periods of the project schedule and how these resources align with target completion dates for levels and sectors.

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
					DUE: EOC INSTALL R.317 INSTALL	DUE: R.320B INSTALL R.320C INSTALL	DUE: Testing & Commissioning Acceptance Testing	DUE: Training	DUE: Training
Staging Technicians	1	1	1	0	0	0	0	0	0
Lead Installation Technicians	1	1	1	1	1	1	1	1	1
Installation Technicians	0	2	4	4	6	4	4	0	0
Lead QA Specialist	0	1	1	0	1	1	1	1	1
TOTAL	2	5	7	5	8	6	6	2	2

Project**Planning**

Whitlock has been planning for the potential of this The City of Austin project and will escalate that planning process upon potential award. Some of these efforts include:

- Full customer & project requirements review
- Team training & Orientation with key partners
- System(s), Badging & Safety Training
- Site Walk-Through/Review

Planning

Program**Management**

Whitlock has embraced the PMO methodologies, certifications and best practices around **Project and Program Management**. In addition to the growing number of PMP certifications Whitlock maintains on staff, we have invested in a national Program Management Office (PMO), and we train around these principles, along with the unique best practices that apply to audio, video and unified communications. The unique value of the Program Management role is to ensure consistent compliance with standards, best practices and culture, with the goal of delivering a consistent user experience across the enterprise.

We develop Custom Distribution Lists:

- External team lists for coordination with customer & key stakeholders: CityOfAustin@whitlock.com

Our Consistent Reporting includes:

- Daily Field Reports: Internal reporting of field progress, per room, includes issues affecting install.
- Weekly Field Reports: Report of field progress, per room/floor/building submitted weekly to the project team.
- QCC & Staging Report: Matrix report of in house rack build and staging management per room.
- Weekly OAC: Documented progress and minutes following weekly low voltage meeting

Our Regular Meetings include:

- Weekly Internal Meeting: Internal project team coordination to discuss progress, status, equipment and resources.
- Weekly Onsite (Crew) Meeting: Onsite team coordination and field operations.
- Weekly Low Voltage Meeting (OAC): Customer, Consultant and Contractor weekly sync-up.

- Programming Meeting: Control and system functionality, user interface, signage and IT infrastructure.

ValueEngineering

System Design (SOW & BOM) + CAD Drawings:
Whitlock uses a team approach to design led by a single, experienced Senior Solutions Architect and supported by Whitlock's Enterprise and regional Design & CAD SMEs. These teams review the best ways to scale and improve efficiencies in our recommended System Design and CAD Drawings.

- Standardized platforms for quicker, consistent delivery
- Cross-checks for SOWs and BOMs
- Peer reviews for functionality & accuracy

SystemProgramming

Control System Programming:
We offer a single source for all control system code and version control management. Control system programming will be provided by ICS+ per RFP. A team based approach allows for joint development on both the UI (User Interfaces) and also the code development with the end user Customer Experience (CX) in mind.

- Follow customer schedule to match timelines/deliverables
- Use remote access tool (ScreenConnect) for offsite programming support
- Offer source management & version control

JITDeployment

Whitlock has the financial strength, manufacturer leverage, processes and facilities to address large equipment quantities, house long-lead items and procure project equipment in stages to ensure timeliness. Our processes avoid excessive time lags between purchase and first use, which can cause potential end of life or warranty issues.

Product procurement and shipping standards are done in accordance with material Manufacturer, and/or Distributor, recommendations and best practices.

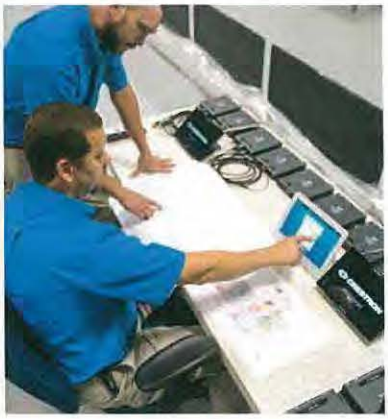
- Multiple Quality Checks & Inspections
- Damaged Goods Review, Returns & Exchanges Handled Quickly
- Ample, Secure Storage for Long-Lead Items at All Locations

Material with special handling requirements will be identified and tagged early. Materials are stored by Manufacturer, Model Number and Project.

Picking and Material Deployment procedures will be implemented and maintained by Whitlock's Warehouse Manager. Material transferring out of Whitlock Warehouse will be double/triple checked for Model Number, Quantity, and Serial Number.

Whitlock's Austin office has sufficient space to securely store, stage and test equipment for this project.

Quality**Control**



QCC
Staging

Whitlock's plan to efficiently test and deliver the AV systems resides with our local expertise from our **regional quality control center**. Our Quality Assurance Team will stage, build and test all AV systems ensuring all systems are pre-checked, pre-configured and working properly before we deliver to the jobsite.

The project team will define and document all organizational and project specific quality standards and include these details in our overall project plan. Our **Mock Up and Staging** process is configured in accordance with InfoComm International 10:2013 and AVAQ AV9000 Best Practices, and customized to meet customer requirements.

A **Staging Quality Assurance Checklist** is completed and added to the project documents. The Checklist verifies that the AV system is approved for Field Deployment, and includes:

- Equipment Rack Build, Terminations, and Labeling
- Table Top and Portable Device Configuration
- Audio Systems Setup and Configuration
- Video Systems Setup and Configuration
- Control Systems Setup and Configuration
- AV Network and Software Setup and Configuration

A sample abbreviated section of the Staging QA Checklist:

Whitlock Qualty Assurance Staging Checklist	
Project Name	
Project ID	
Project Manager	
QAS / Lead Technician	

Whitlock
Share it with the world.

#	Test Name	Description	Pass/Fail	Tools	Comments
Equipment Rack					
3	Power	All devices are powered and grounded per the project specifications.			
8	Inspect Connectors	Connector terminations are solid in their connectors, visually inspected, and in compliance with Whitlock termination standards.			
11	Photograph	Take digital photos of the front and rear of each completed rack. For large racks, 2 pictures are needed for top half and bottom half.			
Setup and Configure Audio					
18	Speaker Setup	Speakers matching amp output, for 70V conenct one per zone/room for testing			
19	Mic Setup	Setup a min of 2 conferencing microphones including mute and indicator logic functions			
20	Audio DSP	Load all audio DSP site files, and configure audio gain structure appropriate for staging. Pre-EQ speakers			

I hereby certify that the system installed is complete, all items on the above checklist have been completed, that rack elevations are as specified, and that all engineering, fabrication, programming, installation, testing and checkout is complete and in accordance with the specification in product, practice, and performance, and that the system is ready to be placed into service.

APPROVALS		DATE	COMMENTS
Lead Tech/Stage Mgr. Signed:			
QA Specialist Signed:			

Whitlock's **Quality Control Center Lead** acts as the single POC for all IP address coordination and documentation for the project. This allows us to manage, document, and control all device configuration within our controlled environment. Typical documentation could include items such as device names, location, serial number, Port numbers, etc. This is an important part of the project close out documentation.

Pre-Deployment Team Training:

Three (3) total team orientations and pre-deployment trainings occur as part of our project plans.

- The first will be a team kick off at Whitlock's office for an understanding and clarification of the deployment plan, roles and responsibilities and the reporting structure for

the project. Additionally, we will verify the badging and Onsite Orientation Safety Requirements are understood and fulfilled.

- Next is an Orientation at Whitlock's QCC, focusing on the staging, testing, logging and kitting process.
- And a final orientation will take place at the project site, covering the site plan, timelines, roles and responsibilities and reporting structure for the project.

Deployment**Details**

Field Deployment

Site specific delivery conditions are to be assessed by the Whitlock project team so that delivery procedures are identified and followed. Upon delivery, all equipment will be checked to ensure that no damage was sustained during shipment. Delivery documentation is to be completed and maintained so that an accurate record of material delivered is available. Material being delivered is checked for correct Model Number, Quantity, and Serial Number.

Uniformed Teams

Whitlock installation technicians will wear uniforms, helping to easily identify them and provide a professional look throughout a project.

Final Testing and Commissioning

Final Testing and Commissioning procedures will be identified and outlined by the Quality Assurance Manager and Project Team lead.

- Initial testing procedures will completed by Technical Team Lead to ensure that a system meets initial requirements
- Subsequent testing will be completed by Quality Assurance Team to ensure system operates as intended.
- The Quality Assurance Manager will ensure the **Field Commissioning Quality Assurance Checklist** is completed and added to the project documents.

Our Project Acceptance and Closeout process involves:

- Audio Systems Commissioning
- Video Systems Commissioning
- Control Systems Commissioning
- AV Network Commissioning
- General Commissioning tasks including Safety, Cleaning, Inventory, and Final Inspections.

System Performance Verification

The Whitlock Quality Management Plan evaluates and verifies system requirements from the following functional categories to ensure compliance with InfoComm and AVAQ best practices and standards. The quality assurance specialist will provide daily quality management and conduct process audits on a weekly basis, monitor process performance metrics, and assure all processes comply with project and organizational standards. If discrepancies are found, the quality manager will meet with the Project Manager and review the identified discrepancies.

- **Audio Performance**
  Verification items within this category verify the audio system's performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address capture, transformation, or reproduction of program audio or voice; audio signal management; acoustic environment; and loudspeaker operations shall be listed in this section.

- **Video Performance**
  Verification items within this category verify the video system's performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address capture, transformation, or reproduction of video; video signal management; and camera operations shall be listed here.

- **Audio/Video Performance**
  Verification items within this category verify linked audio and video system elements that cannot be separated due to their functional requirements. These items verify performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address linked audio and video system elements shall be listed in this section.

- **Cable Management, Termination, and Labeling Control Performance**
  Verification items within this category verify the workmanship for installation and management of all systems' cabling, labels, and connections conformance to requirements provided within project documentation. Project-specific verification items that address site cabling, rack cabling, furniture cabling, and loose cables shall be listed.

- **Electrical**
  Verification items within this category verify the control system's performance, usability, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address system communications interface and control devices, mobile device integration, external system integration (e.g., life safety, security, environmental), automated system functions, and user interface operations shall be listed in this section.

- **Information Technology**
  Verification items within this category verify the Information Technology elements of the system perform, provide stability, and conform to requirements provided within project documentation. Project-specific verification items that address network integration and performance, IT systems integration, IT security, unified communications, and software licensing shall be listed in this section.

- **Operations and Support**
  Verification items within this category verify that operational planning and handover of elements of the system have been conducted and conform to requirements provided within project documentation. Project-specific verification items that support planning for operations or address handover elements shall be listed in this section.

- **Physical Environment**
  Verification items within this category verify that built elements that interact with a system perform and conform to requirements provided within project documentation. Project-specific verification items that address structural reinforcement, lighting, enclosures, finishes, and other built elements shall be listed in this section.

- **Physical Installation**
  Verification items within this category verify that the workmanship for installation of all the equipment within the system except cabling conforms to requirements provided within project documentation. Project-specific verification items that address containment, installation, security, and equipment cleanliness shall be listed in this section.

- **Serviceability**
  Verification items within this category verify that the system is serviceable in conformance with the requirements provided within project documentation. Project-specific verification items that address system accessibility, access panels, and rack clearance shall be listed in this section.

- **Wireless**
  Verification items within this category verify that all aspects of wireless audio, video, and control systems perform and conform to the requirements provided within project documentation. Project-specific verification items that address radio frequency, infrared, Bluetooth®, Digital Enhanced Cordless Telephony (DECT), and proprietary wireless systems shall be listed in this section.

- **System and Record Documentation**
  Verification items within this category verify that the system's project-specific record documentation has been completed. Any documentation should be delivered in electronic format wherever possible and practical. Project-specific verification items that address drawings and specifications, test reports, manuals, and acceptance reports shall be listed in this section.

Client**Acceptance**

The Whitlock project team will identify the project stakeholder expectations and requirements and ensure that all project-based requirements are met during the Client Acceptance process. This milestone verifies acceptance of the project has been issued by the owner or owner's representative, acknowledging that the project is 100% complete and all required deliverables, services, verification lists, testing, and signoffs have been received, and all requirements defined in the project documentation have been satisfied and completed that occur at the completion of the closeout verification phase. No further project activity will take place after this milestone is verified.

Project**Closeout**

Project close out documentation will be assembled, formatted, and delivered to Project Stakeholders at completion of the project. Close out documentation will include product warranty information, Whitlock craftsmanship warranty information, System programming and configuration files, and System assembly and wiring details.

The Whitlock project team will identify project stakeholder expectation and requirements and ensure that all project based requirements have been met during the Project Close Out process.

Safety**Program**

Whitlock has a long history of a safety-first culture as well and has maintained low incidents and rates with no OSHA violations. All new hires are provided a Safety Manual and go through our training program. Our teams are constantly monitored regularly by management to ensure our safety culture is maintained. We ensure our employees meet or exceed OSHA requirements for PPE (Personal Protective Equipment) and general safe work practices while on clients' sites.

Our focus on employee safety continues to expand and is reviewed annually by an outside consulting firm for ongoing improvements. Some highlights from our safety program include.

- **OSHA compliant Whitlock Safety Manual**
  We contract with a safety consulting company to develop and help maintain our custom safety manual (HSE). This manual details our safety policies and procedures as required by OSHA for the type of work we may encounter. We review our program annually and add more information as needed to ensure our policies and work practices are at the highest levels of safety possible.

- **Safety Orientation Program & Safe Work Practices**
  We have a general safety orientation program that is used for all new employees and sub-contractors. All employees receive orientation based on OSHA standards and are monitored by their supervisors to ensure safety guidelines are always being followed. We use an online training system that offers a wide variety of safety topics to ensure our employees have access to all safety topics.

- **Weekly Safety Meetings (Toolbox/Tailgate Meetings)**
  This is one of the most important parts of our safety program. Regular safety meetings are a necessity to reinforce our commitment and focus on safety. They keep everyone aware of safety on a daily basis and ultimately result in fewer preventable accidents. Each office conducts safety meetings on a specific topic each week, and employees sign forms, which are archived for future reference. The meetings are conducted in the office by the safety coordinator or on site by a project manager or Lead Technician/Site Supervisor.

- **OSHA 10 & 30 Hour Construction Safety Certification**
  - All Technicians are required to obtain OSHA 10 hour certifications
  - All Lead Technicians and Site Managers are required to obtain OSHA 30 hour certifications

- All Project Managers are required to obtain OSHA 10 hour certifications

- **Safety Communications**
  Our main method to reinforce safety compliance is our weekly safety meetings. We also maintain a Whitlock safety page on our company's Intranet, which is updated regularly and includes local safety contact information, safety documents, link to OSHA's website, information on Healthcare providers & worker's comp injuries, and general safety tips to help reduce injuries or incidents. Other ongoing communications are handled by:
  1. Regional Safety Coordinators at each office
  2. Operations Managers and Regional Directors at regular team meetings
  3. Open forums to discuss safety and highlight positive examples or lessons learned

- **ISNetworld - Data collection Service & Avetta (formerly PICS)**
  ISNetworld is the global resource for connecting corporations with safe, reliable contractors in capital-intensive industries. Our clients use this service to view our company information, insurance, and safety program. We also maintain an Avetta account for our customers that use this resource.

- **Incident / OSHA Reporting**
  Whitlock maintains copies of incident reports, weekly safety meetings, OSHA 10 & 30 Certifications, etc. for all our personnel. We have an online method of incident reporting and all incidents are reviewed by management and corrective action is taken when necessary.

Worker's Compensation Experience Modification Rate (EMR) as of the three most recent years:

- **2016:** 0.73
- **2015**: 0.92
- **2014:** 0.92

Total Recordable Incident Rate (TRIR) of the three most recent years:

- **2015:** 0.81
- **2014:** 1.37
- **2013**: 1.58

Change Control Process

Whitlock's operational staff and processes are designed to monitor and adhere to best practices around change control and AIA billing and reporting requirements.

Procedures

Submit to Architect within 15 days of execution of Owner-Contractor Agreement name of authorized to accept changes on behalf of Contractor, and shall be responsible for informing others in Contractor's employ of changes in Work. Change Order forms will be furnished and issued by Architect.

Whitlock's Documentation of Changes

- Maintain detailed records of Work done on accounting basis acceptable to Architect and Owner.
- Provide full information required for evaluation of proposed changes.
- Document each quotation for a change in cost or time with sufficient data to allow evaluation of quotation.
- On request, provide additional data to support computations: Quantities of products, labor and equipment, Insurance and bonds, Overhead and profit, Justification for change in Contract Time, Credit for deletions from Contract, similarly documented.
- Support each request for additional costs, and for Work proposed on time and material basis, with description of products, equipment, cost of labor and subcontracts, completely documented.
- Computation for changes in Work will be computed in one of manners described in Conditions of the Contract.

Initiation of Changes

- Architect may submit Proposal Request which includes detailed description of change with supplementary or revised Drawings and Specifications.
- Contractor may initiate proposed change by submittal of request to Architect describing proposed change with statement of reason for change, and proposed effect on Contract.
- Sum and Contract Time with full documentation, and statement of effect on Work of separate contractors.
- Document requested substitutions.

- Submission of such requests and receipt of same by Architect does not mean acceptance or approval of proposed change.

Authorization

- Owner may request, through Architect, Construction Change Directive, in writing, instructing Contractor to proceed with changes in Work, for subsequent inclusion in Change Order that is pending.
- Directive will propose basis for necessary adjustments, to Contract Sum or Time.
- Changes that affect Contract Sum or Contract Time will require Change Order signed by Owner and Architect.
- Contractor's signature indicates agreement.
- Orders, written or oral, by Owner through Architect or by Architect shall be treated as Change Order only if Contractor gives Owner proper written notice as described in Conditions of Contract.
- Promptly execute change in Work only upon receipt of approved Change Order or Owner's written Construction Change Directive.

Execution

- Architect will issue Change Orders for signatures of parties as provided in Conditions of Contract.
- Promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Sum as shown on Change Order.
- Promptly revise Progress Schedules to reflect change in Contract Time, revise sub schedules to adjust times for other items of Work affected by Change, and resubmit Schedule.
- Promptly enter Changes in Project Record Documents

Project**Accounting**

Whitlock has teams of highly-focused, trained professionals to provide an edge on the financial health of a project from beginning to end. This improves our efficiency, and also adds another layer of support for customers. Our Project Accounting team include supervisors, project accountants and contract billing specialists.

Our Project Accountants lead the overall focus on making sure the project is kept in balance and within the customer requirements at all times. Our Contract Billing Specialists work alongside the Project Accountants in producing invoices, and serve as a general resources for any needs of our install teams or customers. Our Project Accounting Supervisors oversee the teams and also act as a backup when needed.

These teams communicate regularly:

- Meetings at Kick-off and regular intervals to ensure best practice match to customers
- Distribution lists to keep teams informed and aligned.

Managed**Services**

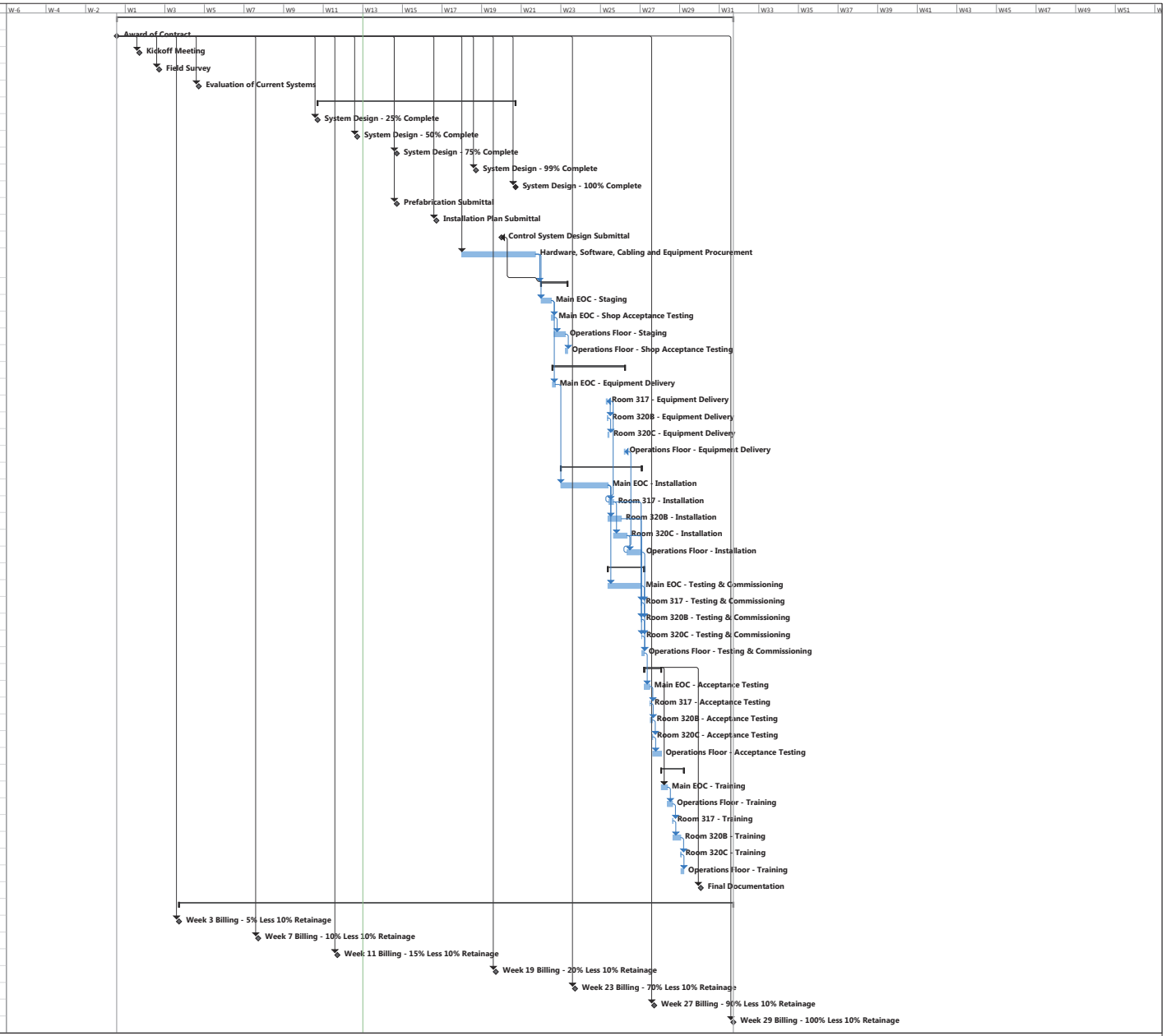
Priority, On-Site and Remote Support

Whitlock involves our service teams in final testing & commissioning to ensure a smooth transition from implementation to support. Early in our process, we address the minimum warranty requirements in an RFP. However upon successful award, Whitlock will present suggestions for enhanced priority support programs, including a priority support plan, a dedicated on-site team and support from our AVNOC in Dallas.

Project**Schedule**

Please see Tab 7 for both a .pdf and an .mpp version of the Project Schedule created for City of Austin.

ID	Task Name	Duration	Start	Finish	Predecessors
1	**AUSTIN CTECC UPGRADE PLAN**	**1248 hrs**	**W52/5**	**W31/5**	
2	Award of Contract	0 days	W52/5	W52/5	
3	Kickoff Meeting	0 days	W1/5	W1/5	2FS+6 days
4	Field Survey	0 days	W2/5	W2/5	2FS+11 days
5	Evaluation of Current Systems	0 days	W4/5	W4/5	2FS+21 days
6	**System Design Milestones**	**400 hrs**	**W10/5**	**W20/5**	
7	System Design - 25% Complete	0 days	W10/5	W10/5	2FS+51 days
8	System Design - 50% Complete	0 days	W12/5	W12/5	2FS+61 days
9	System Design - 75% Complete	0 days	W14/5	W14/5	2FS+71 days
10	System Design - 99% Complete	0 days	W18/5	W18/5	2FS+91 days
11	System Design - 100% Complete	0 days	W20/5	W20/5	2FS+101 days
12	Prefabrication Submittal	0 days	W14/5	W14/5	2FS+71 days
13	Installation Plan Submittal	0 days	W16/5	W16/5	2FS+81 days
14	Control System Design Submittal	0 days	W20/1	W20/1	16SF-10 days
15	Hardware, Software, Cabling and Equipment Procurement	20 days	W18/1	W21/5	2FS+86 days
16	**System Staging (off site fabrication)**	**57 hrs**	**W22/1**	**W23/3**	**15**
17	Main EOC - Staging	30 hrs	W22/1	W22/4	15
18	Main EOC - Shop Acceptance Testing	8 hrs	W22/4	W22/5	17
19	Operations Floor - Staging	15 hrs	W22/5	W23/2	18
20	Operations Floor - Shop Acceptance Testing	4 hrs	W23/2	W23/3	19
21	**Equipment Delivery to Site**	**143.5 hrs**	**W22/5**	**W26/2**	
22	Main EOC - Equipment Delivery	8 hrs	W22/5	W22/5	17FS+2 hrs
23	Room 317 - Equipment Delivery	2 hrs	W25/3	W25/3	29SF-6 hrs
24	Room 320B - Equipment Delivery	3 hrs	W25/3	W25/3	23
25	Room 320C - Equipment Delivery	3 hrs	W25/3	W25/3	24
26	Operations Floor - Equipment Delivery	6 hrs	W26/2	W26/2	32SF-1 hr
27	**System Installation (on-site)**	**165.25 hrs**	**W23/1**	**W27/1**	
28	Main EOC - Installation	102 hrs	W23/1	W25/3	22
29	Room 317 - Installation	14 hrs	W25/4	W25/5	28FS+2 hrs
30	Room 320B - Installation	18.5 hrs	W25/3	W26/1	28
31	Room 320C - Installation	18.5 hrs	W25/5	W26/3	29
32	Operations Floor - Installation	28.75 hrs	W26/3	W27/1	31
33	**Testing & Commissioning**	**69.25 hrs**	**W25/3**	**W27/2**	
34	Main EOC - Testing & Commissioning	60 hrs	W25/3	W27/1	28
35	Room 317 - Testing & Commissioning	1 hr	W27/1	W27/1	29,34
36	Room 320B - Testing & Commissioning	1 hr	W27/1	W27/1	30,35
37	Room 320C - Testing & Commissioning	1 hr	W27/1	W27/1	31,36
38	Operations Floor - Testing & Commissioning	6 hrs	W27/1	W27/2	32,37
39	**Acceptance Testing**	**32 hrs**	**W27/2**	**W28/1**	
40	Main EOC - Acceptance Testing	16 hrs	W27/2	W27/4	38
41	Room 317 - Acceptance Testing	2 hrs	W27/4	W27/4	40
42	Room 320B - Acceptance Testing	3 hrs	W27/4	W27/5	41
43	Room 320C - Acceptance Testing	3 hrs	W27/5	W27/5	42
44	Operations Floor - Acceptance Testing	8 hrs	W27/5	W28/1	43
45	**Training**	**48 hrs**	**W28/1**	**W29/2**	
46	Main EOC - Training	20 hrs	W28/1	W28/3	39
47	Operations Floor - Training	12 hrs	W28/3	W28/5	46
48	Room 317 - Training	2 hrs	W28/5	W28/5	47
49	Room 320B - Training	3 hrs	W28/5	W29/1	48
50	Room 320C - Training	3 hrs	W29/1	W29/1	49
51	Operations Floor - Training	8 hrs	W29/1	W29/2	50
52	Final Documentation	0 days	W30/1	W30/1	39FS+10 days
53	**Billing Milestones**	**1120 hrs**	**W3/5**	**W31/5**	
54	Week 3 Billing - 5% Less 10% Retainage	0 days	W3/5	W3/5	2FS+16 days
55	Week 7 Billing - 10% Less 10% Retainage	0 days	W7/5	W7/5	2FS+36 days
56	Week 11 Billing - 15% Less 10% Retainage	0 days	W11/5	W11/5	2FS+56 days
57	Week 19 Billing - 20% Less 10% Retainage	0 days	W19/5	W19/5	2FS+96 days
58	Week 23 Billing - 70% Less 10% Retainage	0 days	W23/5	W23/5	2FS+116 days
59	Week 27 Billing - 90% Less 10% Retainage	0 days	W27/5	W27/5	2FS+136 days
60	Week 29 Billing - 100% Less 10% Retainage	0 days	W31/5	W31/5	2FS+156 days



Project: CTECC UPGRADE - 3
Date: W13/1

Task · Split · Milestone · Summary · Project Summary · Inactive Task · Inactive Milestone · Inactive Summary · Manual Task · Duration-only · Manual Summary Rollup · Manual Summary · Start-only · Finish-only · External Tasks · External Milestone · Deadline · Progress · Manual Progress

Appendix C: Technical and General Requirements

CTECC Integrated Audio and Video

City of Austin

WHITLOCK VENDOR RESPONSE

CTECC Integrated Audio and Video - System Requirements Specification				One Response per Requirement						Module / Solution - Is the requirement fulfilled by a specific Module outside of the core system, or is there a third-party solution? Answer YES or NO If YES please add specific	WHITLOCK Vendor Response
Sys Req ID#	Requirements	Category	Notes	Y	G	C	F	3	N		
001	The Audiovisual (AV) Contractor shall provide four (4) Laser Phosphor Hybrid projectors utilized to form a unitized image to fill a large front projection screen approximately 7'0" x 44'0".	System Specification		x							
002	The AV Contractor shall provide imaging in the main EOC that is considered a single, contiguous desktop image with the inherent capability of displaying twelve (12) simultaneous images in any configuration, resolution or aspect ratio.	System Specification		x							
003	The AV Contractor shall provide a display system to encompass front projection, utilizing a single, fixed projection screen with four (4) ceiling mounted and edge butted projectors to provide the maximum pixel density.	System Specification		x							
004	The AV Contractor shall design the switching and distribution system in a manner that even the images are projected from discrete projectors, the image shall appear to be a single contiguous image across the entire screen area.	System Performance		x							
005	The AV Contractor shall provide a single projection image with a minimum resolution of 7,680 pixels X 1,080 pixels for a total of 8,294,400 pixels. Permanently installed systems are to be provided that shall provide for a level of automated display re-alignment.	Product Specification		x							Whitlock has submitted an EXCEPTION in our proposal to the provision calling for automated display realignment. This feature is useful in edge-blended systems, but not in edge-butted systems.
006	The AV Contractor shall provide Front Projection with the following features: Screen Size: 514 1/8"W X 80 7/8"H Image Area: 504"W X 70 ¾"H Screen Gain: 0.9	Product Specification		x							Whitlock believes that these dimensions are somewhat approximate. Exact dimensions will be very similar.
007	The AV Contractor shall provide Projectors with the following features: Resolution: 1920 x 1080 P Light Output: 13,000 ANSI Lumens Contrast Ratio: 50000:1 Light Source: Laser Phosphor Light Source Lifetime: At least 20,000 hours	Product Specification		x							Christie HS Series exactly meets this spec.
008	The display system shall withstand rigorous, high-demand and display various types of video and data sources consistently in a 24/7 environment.	System Performance		x							
009	The AV Contractor shall provide the Automatic Imaging Alignment System that is a computer based software and hardware system to realign the projection system over time.	System Performance							x		Whitlock has excluded this from the design. After reviewing this requirement with the manufacturer of this alignment system, Scalable Displays, there is no need for this product. The product is manufactured for alignment of edge blended projection systems, and is not needed for edge butted projection systems such as the one proposed for the Main EOC Room 320. Neither the Price Proposal Form nor the Statement of Work provided with the RFP mentions the Automatic Imaging Alignment System, so Whitlock assumes that its mention in the System Requirements 09,10, 11 is an oversight.
010	The Automatic Imaging Alignment system shall contain a dual channel warping box to allow for seamless integration and alignment of the four (4) edge-butted projectors.	System Specification							x		
011	The system shall include a calibration camera with power over Ethernet (POE).	System Specification							x		
012	The system shall be capable of supporting up to WUXGA resolution (1900 x 1200).	System Performance		x							Native resolution of projectors specified is 1920x1080, but they are capable of supporting 1920x1200.
013	The system shall be able to offer a quick startup time. The startup time should be less than 5 minutes.	System Performance		x							Laser Phosphor will be at full brightness within 30 seconds.
014	The AV Contractor shall provide Flat panels that have a minimum of 1920 x 1080P resolution and at least two (2)High-Definition Multimedia Interface (HDMI) inputs.	Product Specification		x							
015	The AV Contractor shall provide Video Wall Processor that is the central hub to display and control of the video wall and accommodate both analog and digital video sources as noted in the Input/Output Matrix contained within this document (Appendix B)	Product Specification		x							Barco TransForm N in Barco proposal; Jupiter Catalyst 4500H in Jupiter proposal.
016	The processor shall display, at a minimum, twelve (12) simultaneous windowed HD sources on the primary wall which are dynamic and can be adjusted in size and format, as necessary.	Product Specification		x							
017	The AV Contractor shall provide a video wall control processor that is versatile, scalable, and future-proof. This video wall control processor shall be an IP-based system.	Product Specification		x							
018	The AV Contractor shall provide a standardized cable infrastructure in support of the IP network distribution.	Product Specification		x							
019	The IP based system shall distribute sources to computers and/or tablets via an easy-to-use web interface.	System Performance/Web Interface					x				
020	All sources shall be available to be seen and heard on this web interface with minimal latency due to encoding/decoding.	System Performance/Web Interface					x				This will be provided as an option in the BOM Optional tab.
021	The AV Contractor shall integrate existing sources into the system (Appendix B)	Video Wall Control Processor		x							

022	The AV Contractor shall provide Audio System in support of audio and video teleconferencing.	Audio System		x								
023	The AV Contractor shall provide Program Audio for all available sources to overhead speakers and to individual laptops.	Audio System		x								
024	The AV Contractor shall provide Audio System in support of speech reinforcement.	Audio System		x								
025	The AV Contractor shall integrate all available audio sources into the IP distribution system.	Audio System		x								
026	The AV Contractor shall equip all Operator Workstations with appropriate software to enable operators to selectively listen to audio content via user supplied headphones.	Audio System		x								Barco solution supports this nativvely; Jupiter solution uses Audinate for this.
027	The AV Contractor shall provide the new Audio Processing System to incorporate all necessary input, output, processing echo cancellation, VoIP, as necessary.	Audio System		x								
028	The AV Contractor shall digitally encrypt the wireless microphone system and include the appropriate antennae distribution for a drop-out free environment.	Audio System		x								
029	Prior to ordering equipment, the contractor shall coordinate the frequencies of all wireless devices to prevent unwanted interaction between devices and rooms. This includes, but is not limited to, wireless microphones, assisted listening system devices, wireless control panels, etc.	Audio System		x								
030	The control processor shall support the various displays, projection systems, video, and audio sources, as required.	Control Systems		x								
031	The AV Contractor shall provide a control system with remote access capability via a web-based interface.	Control Systems		x								
032	All programming shall be performed by one of the two specialized third-party programming firms with Texas-based offices (PepperDash or ICS+ or approved substitute).	Control Systems		x								Whitlock has specified ICS+.
033	The AV Contractor shall incorporate existing lighting control system in the EOC into the system.	Control Systems		x								
034	The AV Contractor shall provide control panels with color touch panels.	Product Specification		x								
035	The AV Contractor shall provide a Laser Phosphor Hybrid Projector with at least 13,000 ANSI lumens and 1920 x 1080P resolution.	Product Specification		x								Christie HS series meets these specs exactly.
036	The AV Contractor shall provide alternate video distribution to offsite tablet and phone based field units.	IP Based Video Distribution (optional or future)						x				This will be provided as an option in the BOM Optional tab. Both Barco and Jupiter can send content to offsite tablet and phone based field units. Jupiter allows for
037	The AV Contractor shall provide additional system inputs and outputs in support of sending video to and from the video wall in the dispatch center operations floor.	IP Based Video Distribution (optional or future)		x								
038	The AV Contractor shall provide the type of equipment or material (any given item) to be the product of one manufacturer throughout the facility. Multiple manufacturers of any one item shall not be permitted, unless specifically noted otherwise.	Product Specification		x								
039	The AV Contractor shall provide all accessories, including rack mounting hardware, power supplies, etc., to be obtained from the original equipment manufacturer. Unless otherwise noted or specified, third party accessories shall not be used.	Accessory specification		x								
040	The AV Contractor shall ensure that network components and design must meet all COA standards and security requirements.	COA Standards/Security Requirement		x								
	The AV Contractor shall provide the analog audio to meet the following Performance Standards:	Performance Standards		x								
041	Frequency Response ..... Within plus or minus 0.5dB, 20 Hz to 20,000 Hz			x								
042	Signal to Noise Ratio ..... greater than 90Db (including crosstalk and hum at all input/output levels)			x								
043	Total Harmonic Distortion ..... 0.05% maximum from 20 Hz to 20,000 Hz. Input Levels			x								
044	Microphone (Nominal) ..... -50dbu			x								
045	Overload(Minimum gain) ..... -5dbu			x								
046	Maximum Gain ..... -26dbu			x								
047	Line (Nominal) ..... +4dbu			x								
048	Overload (Minimum gain) ..... +24dbu			x								
049	Maximum Gain ..... +9dbu			x								
050	Input Common Mode Rejection ..... >100db Output Levels			x								
051	Line (Nominal) ..... +4dbu			x								
052	Maximum ..... +24dbu			x								
053	Output Impedance ..... < 0.5 Ohms			x								
054	Load Impedance ..... >150 Ohms			x								

	The AV Contractor shall provide the analog Video (signal) to meet the following Performance Standards:	Performance Standards		x								
055	Frequency Response ..... Within plus or minus 0.5dB, DC to 4.2 MHz			x								
056	Signal to Noise Ratio..... 55 dB minimum (peak to RMS) unweighted, DC to 4.2 MHz			x								
057	Crosstalk: .....45 dB minimum unweighted DC to 4.2 MHz			x								
058	Line and Field Tilt: .....2% maximum			x								
059	Differential Gain: ..... 3% maximum			x								
060	Differential Gain: ..... 2 degrees maximum			x								
	The AV Contractor shall ensure these following performance Standards are met:	Performance Standards		x								
061	SDI – Per SMPTE 259M			x								
062	HD SDI – Per SMPTE 292M			x								
063	HD SDI (Dual Link) – Per SMPTE 424M			x								
064	3G SDI – Per SMPTE 424M			x								
065	HDMI – Per HDMI Ver. 1.3b			x								
066	DVI – Per DVI Ver. 1.0			x								
067	Analog NTSC Video			x								
068	Composite Video signal -- Signal 1V P-P 75 Ω(3.58, 4.43MHz) NTSC, PAL, or SECAM as appropriate			x								
069	S-Video Signal -- Signal Y: 1.0V p-p, 75 ΩC: 0.286V p-p, 75Ω(3.58, 4.43MHz) NTSC, PAL, or SECAM as appropriate			x								
070	Component Video (Beta Component) -- Signal Y: 1.0V p-p, 75 ΩPB/CB: 07V p-p, 75ΩPR/CR: 0.7V p-p, 75 Ω			x								
071	The AV Contractor shall provide the RF Broadband system to meet or exceed the published standards of the following organizations: 1) FCC Part 15 Rules and Regulations: Radio Frequency Devices 2) FCC Part 76 Rules and Regulations: Cable Television Service 3) NCTA-02 Recommended Practices for Measurements on Cable Television Systems. Visual Carrier Level +7 +/- 3dBMv for each tap at channel WW(433.25 MHz) Visual Carrier Level +5 +/- 3dBMv for each tap at channel 2(55.25 MHz) Visual Carrier to Noise Ratio 42 dB minimum on any channel (4MHz bandwidth) Maximum Loss from common 45 dB or less point to any tap at channel WW(433.25 MHz) Maximum Loss from common 37 dB or less point to any tap at channel 2(55.25 MHz)	System Performance		x								
072	The AV Contractor shall provide Audio Video Bridging (AVB) a. IEEE 802.1AS: Timing and Synchronization for Time-Sensitive Applications b. IEEE 802.1Qat: Stream Reservation Protocol (SRP) c. IEEE 802.1Qav: Forwarding and Queuing for Time-Sensitive Streams d. IEEE 802.1BA: Audio Video Bridging Systems	System Performance		x								
	All optical projection systems shall meet the following performance standards:	System Performance		x								
073	The total averaged light output from a projector, in lumens, shall be within plus-or-minus 15% of that specified by the projector manufacturer.			x								
074	The “corner” location shall be defined as the four points determined by intersecting lines drawn 5% of the distance in from the focused edges of the image.			x								
075	The light meter used for the above measurements shall be a properly calibrated foot candle (or lux) meter and shall be cosine-corrected.			x								
076	Projectors, lenses, and mirrors shall be solidly mounted and braced, so that there shall be no observable movement in the image induced by motor vibration or other mechanical operations.			x								

CTECC Integrated Audio and Video --General Requirements Specification				One Response per Requirement						Module / Solution - Is the requirement fulfilled by a specific Module outside of the core system, or is there a third-party solution? Answer YES or NO If YES please add specific	WHITLOCK VENDOR RESPONSE
GRS Req ID #	**Requirements**	**Category**	**Notes**	**Y**	**G**	**C**	**F**	**3**	**N**		
001	The AV Contractor installation shall include the delivery to the installation site, unloading, setting in place, fastening to walls, floors, ceilings, counters, or other structures where required, interconnecting wiring of the system components, equipment alignment and adjustment, programming and configuration and all other work whether or not expressly required herein which is necessary to result in complete and fully operational systems.	General Installation		x							
002	During the installation, and up to the date of final acceptance, the AV Contractor shall be under obligation to protect his finished and unfinished Work against damage and loss. In the event of such damage or loss, the damage shall be replaced or repaired at no cost to the Owner.	General Installation		x							
003	If, in the opinion of the AV Contractor, an installation practice is desired or required, which is contrary to this RFP or drawings, a written request for modification shall be made to the Design consultant Modifications shall not commence without written approval from the Design Team.	General Installation		x							
004	The AV Contractor shall secure all equipment firmly in place, unless requirements of portability dictate otherwise.	Physical Installation		x							
005	Fastenings and supports shall be adequate to support their loads with a safety factor of at least three. All boxes, equipment, etc., shall be secured plumb and square.	Physical Installation		x							
006	In the installation of equipment and cable, consideration shall be given not only to operational efficiency, but also to overall aesthetic factors.	Physical Installation		x							
007	All visible components and finish options shall be submitted to the Design Consultant for review and approval prior to fabrication.	Physical Installation		x							
008	The AV Contractor shall ensure that all equipment have an engraved plaque permanently affixed, denoting its function.	Physical Installation		x							
009	The AV Contractor shall provide a proper finished installation appearance. All components must be furnished and installed trim at all conditions where AV components pass through the finished ceilings. This would include, but not be limited to, video projector supports, television monitor/receiver supports and any other component which is not specifically supplied with integral flanges/trim components; i.e. speaker mounts, assistance listening devices, etc.	Physical Installation		x							
010	The AV Contractor shall ensure that the visible component of any trim is minimal in size, preferably no wider than 1/2". All trim components at the ceiling plane shall be finished to match the approved ceiling finish.	Physical Installation		x							

011	Unless otherwise called for in this RFP and drawings, the following cables, or their approved equals, shall be used in these systems: Type; Manufacturer; Non-Plenum; Plenum RF-CATV (Horizontal-RG6); Belden; 1189A; 1189P RF-DBS/DSS (Horizontal-RG6); Belden; 1829A; 1829P RF-CATV (Vertical-RG11); Belden; 1617A/7731; 1153A RF-50 Ohm (Horizontal RG-8); Times Microwave; Microwave; LMR400 Video (Baseband & SDI); Belden; 1505A;1506A S-Video;Belden;1807A;7700A Control (4 conductor shielded);Belden;1502R;1502P Control (12 conductor shielded;Belden;9556 ;6309FE Audio; Belden; 9451/1266A;9451P Audio (8 Ohm program speakers);Belden; 8473 ;1861A Audio (70 Volt Speaker); Belden; 8461;1863A Video, RGB (RG6); Belden; 7721A; None Video, RGB (RG59); Belden; 7796A ;1826A Multi-Channel Audio; Belden; 8774;88778 Digital Audio (110 Ohm); Belden; 1800B; 1801B 4-Fiber Riser CableTight-Buffered 50 µm multimode (OM3); Corning Cable Systems; None; 004T88-31180-29 Category 6; Panduit; PUP6004IG-B Cat 6 Note: These cable types are cited to illustrate the type and quality of cable required. Unless otherwise noted, cables from other manufacturers, i.e. Canare, CommScope, Extron, Gepco, Liberty, etc. shall be considered, if data sheets indicating equivalency are	Cable Installation		x							
012	All connection plate receptacles must be labeled properly according to Owner approved labeling scheme.	Connection Plate Receptacles		x							
013	Control system user interfaces pages and programming shall be designed for this project exclusively. While there are a great number of design approaches to designing the user interface, the following guidelines shall be adhered to: a. The use of custom system programming from prior projects and/or 'modules' provided by a given manufacturer or programmer may or may not meet the functional intent of the systems and work described herein. It is the responsibility of the AV Contractor to meet the functional intent of the systems in this RFP, including any and all necessary modification of program code or creation of custom modules as required. b. The operation(s) of all system(s) are to match the functional intent already implemented at the owner's facilities as applicable. c. All panels are to have the time and date as icons, in the same position on every page. d. All panels are to have a title, indicating the piece of equipment and/or functionality being controlled. e. Final programming shall include capability to remotely control all functions of the audiovisual system. Only functions required for normal use shall appear on top level pages while underlying "Tech Pages" shall provide access to full manufacturer's remote control functionality. f. Devices similar in nature shall be programmed to operate with a common format. g. No individual component shall be programmed to function atypically. h. Whenever the same button appears on more than one page, it shall be in the same position on each page. i. Where feasible, multi-level access to controls should be implemented. See paragraph "e", above. j. During performance testing, all equipment shall be operated under standard	Performance Standards		x							
014	The AV Contractor shall ensure that all wire bundles are to be neat and combed free of cable crossovers.	Cable Installation		x							
015	The AV Contractor shall ensure that all cables, regardless of length, are marked with a permanent, self-laminating, wraparound number or letter cable marker at both ends, similar to the Panduit "Pan-Code" system. Labels must be computer-generated for legibility. Wire labels written by hand in the field must be replaced with computer generated labels. There shall be no unmarked cables at any place in the system. Marking codes used on cables shall correspond to codes shown on drawings and or run sheets. All labeling must be reviewed and approved by Owner prior to installation as part of the shop drawing process.	Cable Installation		x							
016	The AV Contractor shall group all cables according to the signals being carried. In order to reduce signal contamination, separate groups shall be formed for the following cable families: a. Power cables b. Control cables c. Video cables d. Audio cables carrying signals less than – 20 dBm e. Audio cables carrying signals between – 20 dBm and +20 dBm f. Audio cables carrying signals above +20 dBm	Cable Installation		x							

017	The AV Contractor shall run all power cables, control cables, and high level cables on the left side and all other cables on the right side of an equipment rack, as viewed from the rear.	Cable Installation		x							
018	The AV Contractor shall place cables ties at appropriate intervals of no greater than six inches for vertical bundles and two inches for horizontal bundles.	Cable Installation		x							
019	The AV Contractor shall ensure that all vertical cable bundles are attached to the rack frame.	Cable Installation		x							
020	The AV Contractor shall provide all cables with continuous lengths without splices.	Cable Installation		x							
021	The AV Contractor shall ensure that all system wire, after being cut and stripped, must have the wire strands twisted back to their original lay and be terminated by approved soldered or mechanical means. No bare wiring terminations shall be accepted.	Cable Installation		x							
022	The AV Contractor shall utilize heat-shrink tubing to insulate the ground or drain wire. Unused wires at the end of a cable shall remain unstripped and shall be laid back and held in place with wire ties.	Cable Installation		x							
023	The AV Contractor shall ensure that all solder connections are made with rosin-core solder using temperature-controlled solder stations to avoid cold or cracked solder joints.	Cable Installation		x							
024	The AV Contractor shall ensure that mechanical connections using insulated, crimp-type connectors are bonded to the connector by soldering the wire to the metal part of the connector.	Cable Installation		x							
025	Connections made with screw actuated pressure type terminal strips shall be made by stripping approximately 1/4 inch of insulation from the stranded conductor. Then the untinned wire shall be inserted into the terminal and the screw tightened using a secure fitting precision screwdriver.	Cable Installation		x							
026	The AV Contractor shall ensure that all terminal blocks, boards, strips, or connectors are furnished for all cables which interface with racks, cabinets, consoles, or equipment modules.	Cable Installation		x							
027	The AV Contractor shall ensure that no audio cables are run directly to the audio patch panel jacks. Each audio patch panel shall be furnished with an audio terminal block, and all audio cables to and from the audio patch panel shall terminate on this block.	Cable Installation		x							
028	The AV Contractor shall ensure that all wire markers shall face a common direction.	Cable Installation		x							
029	The AV Contractor shall ensure that all cables shall have proper connector housing.	Cable Installation		x							
030	The AV Contractor shall ensure that cables shall not protrude from the back of racks.	Cable Installation		x							
031	The AV Contractor shall ensure that all cable entries must be through the tops of racks or through entrance holes in the base of the rack. No cable shall enter racks through front, rear or side panel openings.	Cable Installation		x							
032	It is the responsibility of the AV Contractor to verify, furnish and install the correct CATV cable type and connectors, as per the local CATV provider.	Cable Installation		x							
033	Unless otherwise noted, all video and computer video cables are to be terminated using seventy-five ohm (75 Ohm) connectors, with a captive center pin.	Cable Installation		x							
034	Cables running in plenum areas without conduit shall be plenum rated cable, and match the specified cable in **Req ID #011** above.	Cable Installation		x							
035	The AV Contractor shall ensure that All cables that can be terminated in the field (except video and pulse cables, which must be cut to an electrical length) must be cut to the length dictated by the run. No splices shall be permitted in any pull boxes without prior permission of the Consultant. For equipment mounted on casters, in drawers or on slides, the interconnecting cables must be provided with a service loop of appropriate length.	Cable Installation		x							
036	The AV Contractor shall ensure that no cable is installed with a bend radius less than that recommended by the cable manufacturer.	Cable Installation		x							
037	The AV Contractor must provide cable support methods in accordance with industry standards and best practices.	Cable Support		x							
038	The AV Contract must adhere to the following with individual runs throughout building – Support cable at 600mm on center and 100mm at any change in direction, support from building structure. Cables on top of ceiling tiles shall be rejected. Cable supported by ceiling grid support wires shall be rejected.	Cable Support		x							

039	The AV Contractor must adhere to the following for cable bundles – Where multiple cables combine support at 300mm on center and 100mm at any change in direction, support from building structure. Cables on top of ceiling tiles shall be rejected. Cable supported by ceiling grid support wires shall be rejected.	Cable Support		x							
	The AV Contractor shall provide Rack Cabling to meet the following requirements:	Cable Separation		x							
040	1- Neatly train and lace cables.			x							
041	2- Provide services loops for each cable.			x							
042	3- Route cables from components to lacing bars installed on rear rack rail.			x							
043	4- Cable separation of cables for runs within Equipment rack: a. Microphone Level – 50mm from all other circuits. b. Line Level and Control – 50 mm from any circuit with signal of 20dB or greater than Line Level and Control cables. c. Speaker level circuits – 50mm from other circuits. d. Video and Data – 50 mm from any circuit with signal of 20dB or greater than Video and Data. e. AC Power Circuits – 50mm from all other circuits.			x							
044	The AV Contractor shall ensure that all visible cables must be sheathed in a color wrap and must be approved by the Consultant.	Cable Separation		x							
	The AV Contractor shall ensure that Cable separation of cables for runs greater than 24' must meet the following requirements:	Cable Separation		x							
045	Microphone Level – 12" from all other circuits.			x							
046	Line Level and Control – 12" from any circuit with signal of 20dB or greater than Line Level and Control cables.			x							
047	Speaker level circuits – 12" from other circuits.			x							
048	Video and Data – 12" from any circuit with signal of 20dB or greater than Video and Data.			x							
049	AC Power Circuits – 12" from all other circuits.			x							
050	The AV Contractor shall ensure that all connection plate receptacles must be labeled properly according to owner approved labeling scheme.	Connection Plate Receptacles		x							
	The AV Contractor shall ensure that all connection plate receptacles must meet the following requirements:	Connection Plate Receptacles		x							
051	Audio (microphone or line level) – XLR type or approved alternative			x							
052	Audio (loudspeaker level) – Neutrik Speakon® or approved alternative			x							
053	Intercom – XLR or ¼ inch diameter tip/ring/sleeve type, or as required by the intercom system. Jack shall be insulated from panel type.			x							
054	Video – BNC type.			x							
055	Connection Plate Receptacles			x							
056	DVI (Inclusive of DVI-A, DVI-I and DVI-D signal types) – DVI-I type connector unless otherwise specified.			x							
057	HDMI – HDMI with locking nut.			x							
058	USB – USB Type A			x							
059	Category 6 or 6e – RJ45 Type			x							
060	RF – "F" type. Receptacles shall be insulated from panel type.			x							
061	The AV Contractor shall ensure that all patch panels shall be wired so that signal "sources" (outputs from) appear on the upper row of a row pair; and all "loads" (inputs to) appear on the lower row of row pair.	Patch Panels		x							
062	The Av Contractor shall ensure that all audio and video patch panel designation strips must utilize alphanumeric identifications and descriptive information. The jack position in each horizontal row must be numbered sequentially from left to right. The horizontal jack rows must be lettered sequentially from top to bottom. The alphanumeric identification of each jack must be included on the functional block drawings, as well as on reproductions of these drawings, which shall be mounted in an appropriate location near the patch bays.	Patch Panels		x							

063	Because of the great number of possible variations in grounding systems, it shall be the responsibility of the AV Contractor to follow good engineering practice and to deviate from these practices only when necessary to minimize crosstalk, ground loops, ground-induced noise, and to maximize signal to-noise ratios in the audio, video, and control systems.	Grounding		x							
064	The AV Contractor shall establish a single primary “system ground” for the system in each particular area. All grounding conductors in that area shall be connected to this primary system ground.	Grounding		x							
065	The AV Contractor shall provide system ground at the audio equipment rack for the area that consists of a copper bar of sufficient size to accommodate all secondary ground conductors. A copper conductor having a maximum of 0.1 Ohms total resistance shall connect the primary system ground bar to the nearest approved ground.	Grounding		x							
066	The AV Contractor shall provide secondary system grounding conductors between all racks, audio consoles, and audiovisual system equipment local to the area. Each of these grounding conductors shall have a maximum of 0.1 Ohms total resistance.	Grounding		x							
067	The AV Contractor shall ensure that the AC neutral conductor, either in the power panel or in a receptacle outlet or any condition, is never used as a system ground (Except as specifically defined by NFPA 70 for bonding)	Grounding		x							
068	The AV Contractor shall ensure that ungrounded equipment with either an inline transformer or a 2-prong plug, is bonded to the rack bus bar using #12 American Wire Gauge (AWG) cable.	Grounding		x							
069	The AV Contractor shall ensure that all audio cable shields are grounded at one point only. For inter and intra-rack wiring, the shield shall be connected at one end only. For ungrounded portable equipment, such as microphones, the shield shall be connected at both ends but grounded at only one end.	Grounding		x							
070	The AV Contractor shall provide and install all video receptacles which are insulated from the mounting panel, outlet box, or wire way.	Grounding		x							
071	The AV Contractor shall use an InfoComm Certified Audiovisual Solutions provider such as Emerald or Diamond, or approved alternate.	Certifications		x							Comply, please see attached certification package.
072	Audio manufacturer specific certifications for all proposed systems shall include (but are not limited to): Biamp Tesiera DANTE SynAudCon Equivalent of proposed alternate	Certifications		x							Comply, please see attached certification package.
073	Control system manufacturer specific certifications for all proposed systems shall include (but are not limited to): Crestron Master Programmer GOLD or better Equivalent of proposed alternate	Certifications		x							Comply, ICS+ Bernard Morgan is Crestron Master Programmer Gold.

INSTRUCTIONS

Vendors are required to provide responses to columns F through M on tab " Technical Requirements" of this spreadsheet.

Reference the legend below when responding to columns F through K.

Legend

Response	Code	Description
Yes	Y	Yes, the requirement will be met without configuration or customization.
Confi**G**uration	G	Yes, the requirement will be met through changes to setting of tables, switches, and rules without modification to the source code. Include any changes to the existing or 'out of the box' workflow functionality.
Customization	C	Yes, the requirement will be met through changes to the existing reports or programs. This would include custom code developed to perform specific functions or validations outside the standard code. Include the creation of a new report, query or workflow that does not exist within the current application.
Future	F	Yes, the requirement will be met by packaged software in a future release. Note: In the "Vendor Response" column, it is required that Offeror provide the month/year when updated software will be available for implementation and whether the update is currently in Beta testing.
Third (**3**rd) Party	3	Yes, the requirement will be met by a third-party.
No	N	Requirement or service will not be met by Offeror.

Technical Requirements	
	Topic
Technical Architecture	General
	Application Architecture
	Database Architecture
	Integration Architecture
	geographic information system (GIS)
	Network Architecture
	System Administration
Solution Architecture	Scalability
	System Flexibility
	Security & Authentication
	Audit
	Data Storage & Archiving
	System Capacity & Performance
	Business Continuity & Disaster Recovery
Solution Technology	End-User Interface
	Data Entry Support & On-line Help
	Environmental
	Vendor Support Requirements
	Hardware

AUDIOVISUAL PROVIDER OF EXCELLENCE

APEX

infoComm INTERNATIONAL

THIS CONFIRMS THAT

Whitlock

Meets the requirements of InfoComm International®'s APEx program and proves commitment to providing quality service to customers and upholding industry excellence.

06/08/2017

Expiration Date

Craig Janssen, LEED® AP
President
InfoComm International®

Certified Technology Specialist

Michael Bales

has been examined and has demonstrated competence in all technical aspects of a Certified Technology Specialist™, has met the requirements of the InfoComm independent Certification Committee necessary for professional competency, is in good standing in the Directory of Certified Technology Specialists, has agreed to abide by the CTS Code of Ethics and Conduct, and is therefore entitled to use the name Certified Technology Specialist and the CTS® designation.

Effective Date
May 09, 2011

Date of Expiration
May 31, 2020

Certification Number
1321610

Jeremy Caldera, CTS-D, CTS-I
Chair, InfoComm independent
Certification Committee

infoComm INTERNATIONAL®

The InfoComm Certified Technology Specialist certification is accredited by the American National Standards Institute (ANSI) under the International Standard ISO/IEC 17024:2012 Standard General Requirements for Bodies Operating Certification Schemes of Persons program.

Synergetic Audio Concepts

Course 50: How Sound Systems Work

This certifies that

Michael Bales

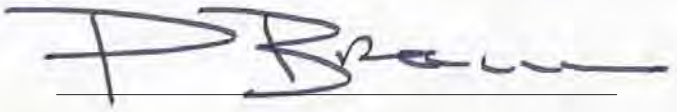
Has completed a web-based training course on the basic setup, interconnection and operation of a sound reinforcement system. This certificate requires a passing score of 80% or higher on the final exam.

Awarded 4/27/2012

This course has been approved for

InfoComm - 12 RUs
CEDIA - 6 CEUs

Instructor



Pat Brown

Certificate Number 6f8bff5173917a31d58db663b6da9c64

Certified Technology Specialist

Michael Bencivenga

has been examined and has demonstrated competence in all technical aspects of a Certified Technology Specialist, has met the requirements of the InfoComm independent Certification Committee necessary for professional competency, is in good standing in the Directory of Certified Technology Specialists, has agreed to abide by the CTS Code of Ethics and Conduct, and is therefore entitled to use the name Certified Technology Specialist and the CTS® designation.

Effective Date
March 24, 2009

Date of Expiration
March 31, 2018

Certification Number
1255334

Charles Espinoza, CTS-D, CTS-I
Chair, InfoComm independent
Certification Committee

infoComm INTERNATIONAL

The InfoComm Certified Technology Specialist certification is accredited by the American National Standards Institute (ANSI) under the International Standard ISO/IEC 17024 General Requirements for Bodies Operating Certification Schemes of Persons program.

audia®

Certificate of Achievement

AWARDED TO:

Michael Bencivenga

For successfully completing Biamp Systems' Audia Training Course

April 2, 2009

AWARDED BY:

Ned Ludlum, Training Director

BIAMP SYSTEMS

...your partner in audio excellence!

TESIRA
TRAINING CERTIFICATION

BIAMP SYSTEMS CERTIFIES THAT

MICHAEL BENCIVENGA

HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS
OF BIAMP'S TESIRA TRAINING COURSE.

4885

MATT CZYZEWSKI
EXECUTIVE VICE PRESIDENT
OF OPERATIONS

BIAMP
SYSTEMS

GRAEME HARRISON
EXECUTIVE VICE PRESIDENT
OF MARKETING

DATE

9300 S.W. GEMINI DRIVE | BEAVERTON, OREGON | 97008 | USA WWW.BIAMP.COM +1.503.641.7287

SynAudCon

SYNERGETIC AUDIO CONCEPTS

Sound Reinforcement for Technicians

This certifies that

Mike Bencivenga

Has successfully completed a 3-day seminar on the fundamentals of sound system gain structure, grounding, equalization, general system calibration and troubleshooting.

Awarded Wednesday, October 27, 2010

This course has been approved for

InfoComm - 24 RUs
NSCA - 16 LUs
BICSI - 19 CECs

Instructor

Pat Brown

Certified Technology Specialist

Larry Fox

has been examined and has demonstrated competence in all technical aspects of a Certified Technology Specialist™, has met the requirements of the InfoComm independent Certification Committee necessary for professional competency, is in good standing in the Directory of Certified Technology Specialists, has agreed to abide by the CTS Code of Ethics and Conduct, and is therefore entitled to use the name Certified Technology Specialist and the CTS® designation.

Effective Date
September 19, 2016

Date of Expiration
September 30, 2019

Certification Number
1337495

Jeremy Caldera, CTS-D, CTS-I
Chair, InfoComm independent
Certification Committee

infoComm INTERNATIONAL

The InfoComm Certified Technology Specialist certification is accredited by the American National Standards Institute (ANSI) under the International Standard ISO/IEC 17024:2012 Standard General Requirements for Bodies Operating Certification Schemes of Persons program.

Certified Technology Specialist Installation

Name: **Jeremiah Hearen**
Designation: **CTS-I**
Effective Date: **March 23, 2016**
Expiration Date: **March 31, 2019**
Certification #: **3335584**

INFOCOMM INDEPENDENT CERTIFICATION COMMITTEE

Be²

Biamp Education Experience

TESIRA

BIAMP SYSTEMS CERTIFIES THAT

JD HEAREN

HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS
OF BIAMP'S TESIRA TRAINING COURSE.

CERTIFICATION # 21249

MATT CZYZEWSKI
EXECUTIVE VICE PRESIDENT
OF OPERATIONS

BIAMP SYSTEMS

GRAEME HARRISON
EXECUTIVE VICE PRESIDENT
OF MARKETING

DATE MAY 4, 2016

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Be²

Biamp Education Experience

TESIRA FORTÉ

BIAMP SYSTEMS CERTIFIES THAT

JD HEAREN

HAS SUCCESSFULLY COMPLETED ALL REQUIREMENTS
OF BIAMP'S TESIRAFORTÉ TRAINING COURSE.

12078

MATT CZYZEWSKI
EXECUTIVE VICE PRESIDENT
OF OPERATIONS

BIAMP
SYSTEMS

GRAEME HARRISON
EXECUTIVE VICE PRESIDENT
OF MARKETING

2 NOVEMBER 2014

9300 S.W. GEMINI DRIVE | BEAVERTON, OREGON | 97008 | USA WWW.BIAMP.COM +1.503.641.7287

Q-SYS™

CERTIFIED

QSC

QSC Audio Products, LLC Costa Mesa, California, U.S.A.

This is to certify that

JD Hearen

has completed

Q-Sys Level 1 Training (Online)

effective on this 4th *day of* November , 2014

And is deemed qualified and entitled by QSC Audio Products, LLC to all of the rights and benefits of such certification.

Ray van Straten
Senior Director,
Marketing Communications
and Training & Education

David Fuller
Senior Director,
International Sales and
Technical Marketing

Certified Technology Specialist

Tyler Williams

has been examined and has demonstrated competence in all technical aspects of a Certified Technology Specialist™, has met the requirements of the InfoComm independent Certification Committee necessary for professional competency, is in good standing in the Directory of Certified Technology Specialists, has agreed to abide by the CTS Code of Ethics and Conduct, and is therefore entitled to use the name Certified Technology Specialist and the CTS® designation.

Effective Date
May 27, 2016

Date of Expiration
May 31, 2019

Certification Number
1336069

Jeremy Caldera, CTS-D, CTS-I
Chair, InfoComm independent
Certification Committee

infoComm INTERNATIONAL®

The InfoComm Certified Technology Specialist certification is accredited by the American National Standards Institute (ANSI) under the International Standard ISO/IEC 17024:2012 Standard General Requirements for Bodies Operating Certification Schemes of Persons program.

Synergetic Audio Concepts

How Sound Systems Work

This certifies that

Tyler Williams

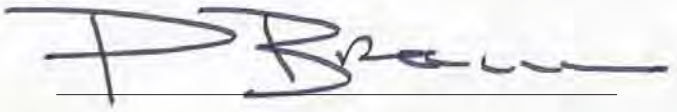
Has completed a web-based training course on the basic setup, interconnection and operation of a sound reinforcement system. This certificate requires a passing score of 80% or higher on the final exam.

Awarded 11/23/2016

This course has been approved for

InfoComm - 12 RUs
CEDIA - 6 CEUs

Instructor



Pat Brown

Certificate Number d4afafd3a14027293f27ede3c9bab415

Our Capabilities for City of Austin

Improving collaboration and creating a more efficient working environment

Our Time Together

- Introductions & Roles
- Business Organization
- Program Concept/Solution
- Implementation, testing and QA
- Support
- Wrap up and Takeaways

Does this meet your expectations?

Our Team and Roles in your Success.

Craig Orris Taylor
Key Account Manager

Matt Hornbuckle
Senior Systems Designer

Christopher Goode
Systems Designer/Barco CMS SME

Richard Wong
Enterprise Program Manager

Vern Etheridge
Service Solutions Manager

Our Team and Roles in your Success.

Tyler Williams
Project Manager

Michael Bencivenga
Senior Project Manager

John Bagnell
EVP, Executive Sponsor

JD Hearen
Lead Technician

Our Time Together

- **11 Years Working Together**
- **8 Years Service Contract CTECC**
- **Conference Room Refreshes**
- **City Hall Since 2004**

Business Organization:

Team Members

- The key team members for this work will include Craig Orris Taylor (D), Matt Hornbuckle (D), Tyler Williams (A), JD Hearen (A), Michael Bencivenga (A), Chris Goode (H), and Richard Wong (H).

- FYI, Whitlock has completed multiple Barco CMS/TransFormN installations recently. Two for Shell New Orleans, one for Shell Houston, two for Schlumberger Houston, and one for Exxon Mobil Houston. Chris Goode was system designer for all.

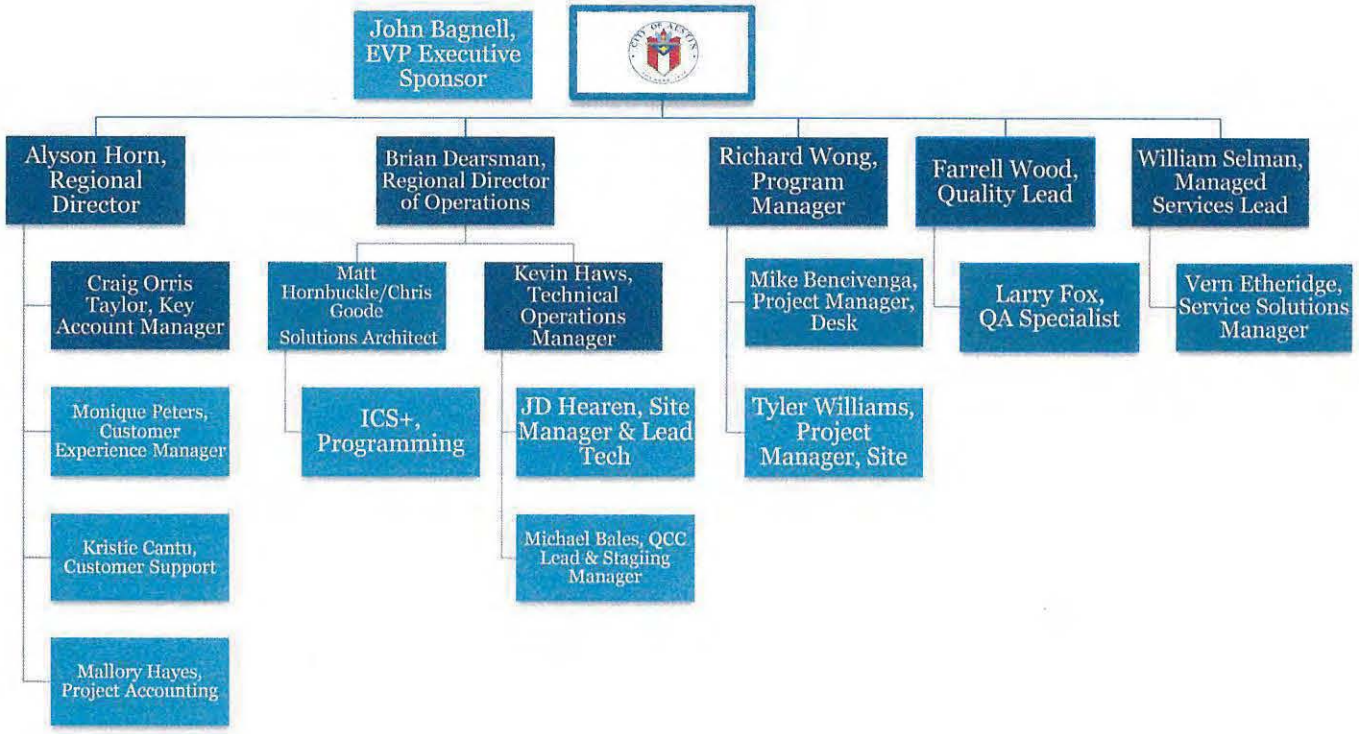
- The Project Manager (Tyler Williams) will have the power to make any decisions for the project on the spot. Change Order Requests will be processed by Tyler and reviewed by Craig prior to submission to customer for approval.

Business Organization:

Austin Team

Business Organization:

Team Members



Business Organization:

Responsibility Matrix

	Whitlock	City of Austin
Assign a project team including a Project Manager	Responsible (R)	Inform (I)
Provide and coordinate installation schedule	R	I
Provide documented weekly progress updates	R	I
Schedule a kick-off meeting with the customer stakeholders, as well as recurring project meetings as listed in the project schedule	R	I
Install systems as described in the above statement of work and the Project Drawings	R	I
Provide all Additional Deliverables listedDrawings	R	I
Take photos of installed systems	R	I
Complete Whitlock Quality Assurance testing and documentation	R	I
Provide Project closeout deliverables to customer	R	I
The rooms into which the equipment will be installed must be secure. All equipment delivered to the site will become the property of the owner immediately upon delivery.	I	R
The rooms and directly adjacent areas into which the equipment will be installed must be dust-free with floor, ceiling, and wall finishes to be completely installed in the rooms affected by the equipment.	I	R
All Electrical power, conduit systems, HVAC systems, IT requirements (wired or wireless services), communication circuits, and or other services required by the systems and equipment should be fully installed, energized, and configured for use.	I	R
Furniture into which components of the equipment will be installed shall be present at the time of staging and/or installation.	I	R
All telephone, POTS, VOIP, modem, PRI, data, LAN, and telecommunications connections are installed, fully tested, and active.	I	R
Configuration of OFE networks, applications, servers, and services to provide interoperation with installed systems.	I	R
Coordination and timely IT support and documentation (such as providing IP addresses).	I	R

Program Concept/ Solution:

Design Phase

- Whitlock will plan on following the deliverable/milestones as requested on page 17-19 of the RFP document.

- The PM and design team will lead this phase.

- The Engineers are based in Dallas and Houston and will be onsite as needed.

- The Whitlock Enterprise Resource Group CAD department will provide drawings and CAD files. Whitlock has 25 CAD Techs.

- The system design will be 99% complete and all drawings will be submitted for review within 18 weeks of award. (Page 19 of RFP)

- Any deviations from the base bid will be handled through change order process, post contract award.

- Whitlock has detailed our exceptions to the design in the RFP.

Program Concept/ Solution:

Design Phase

- Whitlock's design does not require 20 video scalers. Current design requires 2 video scalers for the helicopter camera feeds. Whitlock includes 20 video scalers in the Base Bid, and deletes 18 in the Optional Equipment tab to arrive at needed quantity of 2.

- Whitlock does not see need for an Automatic Alignment System for an edge butted display system. These are needed in edge-blended systems.

- Whitlock retracts our exceptions to items 19 and 20; this was a misunderstanding. These items are covered if the Barco equipment on the OPTIONAL tab is purchased, giving capability to send content to users with smart phones and tablets outside of the facility that are equipped with appropriate licensing

Program Concept/ Solution:

Audio System

- The audio system is based on a streaming or hardwired capture and Dante distribution. This will be accomplished using the OFE network, QSC equipment, and Audinate software.

- The audio sources will be provided to the Operations floor and to the EOC and associated rooms through the Dante audio.

- Depending on switch hops, the latency can be from .15ms with a 1 switch hop to 1ms with 10 switch hops. Whitlock provided equipment will contribute less than 1ms of latency to signal. Latency of less than 5 ms is not humanly noticeable.

- Whitlock will review network topology with CTECC and devise the best possible scenario. The end user devices also have an impact on the latency. Whitlock will review the hardware and provide feedback as needed. To further reduce latency, there is external Audinate hardware that can be added.

Program Concept/ Solution:

Program

- All travel and related costs have been captured in the proposal.

- Part of Whitlock's standard deliverable package is to provide code to the City of Austin.

- Control will be shared between the Crestron Control System (centralized control panel) and the Barco provided software (Sidebar) which is to reside on specifically identified User machines.

- The Barco system is comprised of both hardware redundancy as well as IP redundancy. Dual CMS servers with Auto Fail Over (AFO) covers both hardware failures as well as IP Network failures. Other peripheral devices will have IP redundancy only.

Program Concept/ Solution:

Program

•Refer to the Barco Documentation in regards to network requirements pertaining to specific open ports and Multicast settings. Additional capacity will be based on expansion of the network switch or switches.

•Part of Whitlock's standard deliverable package is to provide detailed design drawings and then updated as-builts in CAD

•Should the City instruct Whitlock to include an IP-based television distribution system for this project, Whitlock is confident that a suitable solution may be developed. Examples of equipment that Whitlock has proposed to meet similar requirements include Tripleplay, Visionary Solutions, and Matrox.

Implementation, Testing and QA:

In-House Build and Testing

•All system staging, fabrication, mock-up and testing will be handled in our local Austin Quality Control Center. All portions of the system run through the QCC, will be pre-checked, preconfigured and documented to ensure they are working properly before they are delivered to the job site.

•Whitlock will do a system mock-up of the Main EOC Barco system including but not limited to:

- Device firmware and software loading.
- Device functionality testing.
- Control system testing and debugging.
- Audio and video routing and functionality testing.
- Configuration of IP addressing with coordination from the COA.
- Complete documentation of all QA checklists prior to deployment.

The remaining systems will include owner furnished equipment (OFE) provided by the city. An evaluation of the current systems, as outlined in the RFP and included in our sample schedule will be conducted to determine the plan to incorporate the existing items in our pre-deployment efforts, with a focus on minimizing the downtime for the COA. All new devices, and all available OFE items, will be put through the same QA testing as outlined for the Main EOC above.

Implementation, Testing and QA:

In-House Build and Testing

- The in-house portion of the project will be overseen by our QCC Lead, with support from our QA Specialist, and with coordination from our Project Manager.

- What interaction is expected from COA?
  - Whitlock intends for COA representatives to participate in our weekly meetings.
  - COA will be invited to tour our Quality Control Center and to participate in our final Shop Acceptance testing.
  - Whitlock will require IP address coordination from COA, to be managed by our Whitlock Project Manager.

- Whitlock is comfortable performing Factory Acceptance Testing, but would like to be directed to the portion of the RFP that references the requirement.

Quality Control

We have a Quality Control Center in all locations for staging, testing & commissioning.

Implementation, Testing and QA:

On-Site Deployment

- Three (3) total team orientations and pre-deployment trainings occur as part of our project plans.
  - The first will be a team kick off at Whitlock's office for an understanding and clarification of the deployment plan, roles and responsibilities and the reporting structure for the project. Additionally, we will verify the badging and Onsite Orientation Safety Requirements are understood and fulfilled.
  - Next is an Orientation at Whitlock's QCC, focusing on the staging, testing, logging and kitting process.
  - And a final orientation will take place at the project site, covering the site plan, timelines, roles and responsibilities and reporting structure for the project.

- Sub-contractor SOW and schedule management will be coordinated directly by Whitlock's Project Manager.

Implementation, Testing and QA:

On-Site Deployment

- All equipment will be shipped to our local Whitlock Austin warehouse and we will manage inventory throughout the shipping, receiving, QA and kitting processes. After systems have passed QA testing, Whitlock personnel will deliver equipment and materials to the site, which will be managed by our Whitlock Project Manager and coordinated with predetermined COA personnel.

- Equipment will be stored in our local Whitlock Austin warehouse.

- Whitlock works closely with our other regions to secure additional manpower as needed. Surge support needs are escalated to our Regional Director of Operations, who will orchestrate the deployment of Whitlock staff across our regions.

Primary U.S. Locations

We have 21 offices + even more field support.

Implementation, Testing and QA:

Quality Assurance

- Whitlock is aware of the urgent and sensitive nature of the work that goes on at CTECC, and we understand the need to minimize downtime and plan for potential workarounds if the rooms and systems are required during the course of this project.
  - As an example, we intend to install a temporary connection plate, which will allow for video signals to be routed to displays at all times, while the normal functionality is offline.

- Communication is of the utmost importance to mitigate issues, so Whitlock will coordinate closely with COA in preparation for every project milestone to ensure that any system cut-overs happen in a controlled manner, with agreed upon back-up plans in place.

Implementation, Testing and QA:

Quality Assurance

•Our Whitlock quality assurance specialist will provide daily quality management and conduct process audits on a weekly basis, monitor process performance metrics, and assure all processes comply with project and organizational standards. If discrepancies are found, the quality manager will meet with the Project Manager and review the identified discrepancies.

•Our QA Specialist will evaluate and verify system requirements including but not limited to:

- Audio Performance
- Video Performance
- Cable Management, Termination, and Labeling Control Performance
- Electrical
- Information Technology
- Operations and Support
- Physical Environment
- Physical Installation
- Serviceability
- Wireless
- System and Record Documentation

•Example reports and checklists have been prepared and are available upon request.

AVNOC

With a purpose built 40,000 square foot engineering and support center in Dallas, TX, Whitlock, has on-tap technical resources and project management expertise to ensure successful implementations.

Support

- First year support will begin at the time of project acceptance. Services include preventative maintenance visits along with break fix call out support for the first year. Whitlock has been providing both proactive and reactive field service for the City of Austin CTECC since 2009. Currently Whitlock maintains a standard ASA of <60 seconds for telephone support and under our current contract with the City of Austin, our on site support time is 4 hours

Support

- Warranties provided for this RFP include the Whitlock 1 year Materials and Workmanship warranty and Barco warranties for both hardware and software. Options available to CTECC include annually renewable manufacture warranties such as Barco software and hardware and annually renewable Whitlock Priority Service Plans. Options available may include escalated on site response times for break fix service support, increased frequency of preventive maintenance visits, recommended critical spare inventory for on site stockage, a pre-determined Contingency fund to be set aside for out of warranty manufacture repairs, manufacture repair parts and consumables. Optional Managed Service Hours can be included and used for on site meeting support, customer training.

Support

- Expanding output and audio sources within the existing framework of the RFP would be included in the maintenance agreement. Equipment lists would be updated to reflect the increase or decrease in the number of inputs or outputs. However, should the number of inputs and outputs added include additional audio-visual spaces or locations, that would be considered an increase in the scope and an increase in price would occur commensurate with the size and scope of the add.

Support

- Under the terms of our service agreement we will coordinate the implementation of all available upgrades on a routine basis If a software or firmware upgrade is deemed critical to improved system operation, field engineers will be immediately dispatched to all sites to perform the upgrade. There is typically no cost associated with firmware upgrades to enhance or fix "bugs" in the previous versions. There could be cost associated with upgrades to expand further capabilities of the system or to add additional features. This would be quoted separately under a change order or scope of work.

Support

- Warranty support for all components is included in our proposal and based on the manufacturers warranty period. Dependent on the product, some warranties are available for annual renewal. Technical labor to respond to both warranty and out of warranty issues is covered under Whitlock's Materials and Workmanship warranty as well as the Whitlock Priority Service Plan. To mitigate out of warranty costs, Whitlock can offer to include a pre-determined Contingency Fund to be set aside for out of warranty equipment repairs, repair parts and consumable purchases.

Open Discussion

Collaboration on Project Success Factors

Additional Whitlock Information:

Capabilities & Approach

What we would love to share with you if time permitted!

Evolving Whitlock

Local to Regional to Global

Product to Project to Enterprise

Boxes to Integrators to Trusted Advisors

- ✓ $300M Revenues
- ✓ 800 Employees
- ✓ National Footprint
- ✓ Global Alliance

Highly certified, top level partners with all ***major technology manufacturers****, and recognized as the industry market leader.*

Agnostic and Proven Recommendations

AUDIOVISUAL PROVIDER OF EXCELLENCE
APEX
infoComm INTERNATIONAL

CHRISTIE®

Partnering

QSC

SAMSUNG

cisco
Premier Partner

CRESTRON
Elite Partner
Crestron RL Strategic Partner

Commercial INTEGRATOR BEST

ANIXTER EDGE

TOP 50

Inc.500 | 5000

Our Unique Value to: City of Austin

- **Our Abilities:** Size, certifications, experience, financial strength, reputation. Our largest operations are in Texas, approximately 200 Whitlock'ers with 30 in Austin alone.
- **Our Approach:** Enterprise Delivery Model: consistent team ensuring a simple, standard user experience, with scalability across your enterprise.
- **Partnership:** We are all in. Agnostic, proven technology recommendations and we will be there to ensure adoption.
- **Support:** We truly lead with support and technology adoption.

Key Success Components:

Consistent & Proactive Communications

Proactive Communications

Program Management

Custom Distribution List:

CityofAustin@Whitlock.com = Core Whitlock Team

Consistent Reporting:

- Daily Field Reports: Internal reporting of field progress, per room, includes issues affecting install.
- Weekly Field Reports: Report of field progress, per room/floor/building submitted weekly to the project team.
- QCC & Staging Report: Matrix report of in house rack build and staging management per room.
- Weekly OAC: Documented progress and minutes following weekly low voltage meeting

Key Success Components:

Meetings across Teams

Consistent Collaboration

Program Management

Weekly Internal Meeting:
Internal project team coordination to discuss progress, status, equipment, resources

Weekly Onsite (Crew) Meeting:
Onsite team coordination & field operations

Weekly Low Voltage Meeting (OAC):
Customer, Consultant and Contractor weekly sync-up

Programming Meeting:
Control and system functionality, user interface, signage, IT infrastructure

Key Success Components:

Field Deployment

Field Deployment:
Whitlock teams check the site specific delivery conditions, equipment, model numbers, quantity and serial numbers to ensure that the correct product is being tested and deployed.

Delivery, Site Logistics & Zero Environmental Impact:
Floor Runners and Whitlock trucks will deliver materials and remove trash from the sites. Additionally, Whitlock will use an ATV on site to lessen the impact of traffic at the job site.

Uniformed Teams:
Whitlock installation technicians wear uniforms, for easy identification and professionalism.

Quality Assurance

Installation

Key Success Components:

Technology Adoption & Training

Enhanced Training

Planning

Beyond the RFP Training Requirements

Whitlock has accounted for the training requirements in the RFP, and will also present City of Austin suggestions for enhanced training services from Whitlock's Technology Adoption Team.

- Enhanced On Demand Training
- Drive & Measure Adoption
- Reporting, Business Intelligence

Our Process to Ensure Quality & Consistency!

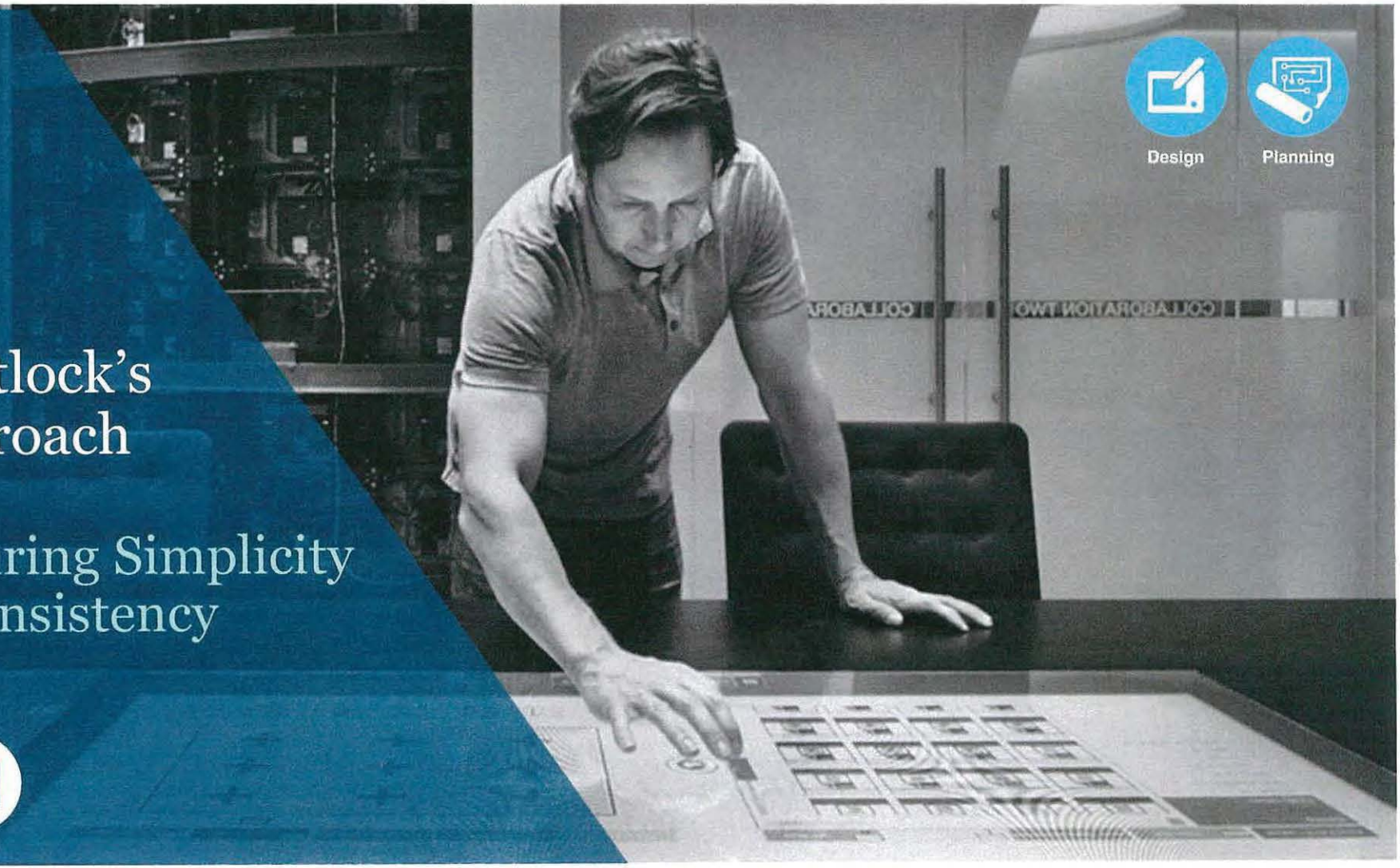
★ *Success starts with aligning to the Customers Vision.*

Enterprise Delivery Model

1. **Align to Customer Vision**
   Technology Roadmaps
2. **Proactively Communicate**
   Project & Program Management Plan
3. **Ensure Adoption**
   Utilization, ROI by Design, Training (Cloud)
4. **Dedicated Enterprise Team**
   Experienced SMEs & Customer Centric Team
5. **Create Standard User Experience**
   Drive Satisfaction, Efficiency & Ease of Use
6. **Quality Assurance**
   Ongoing through Design, Pre-Staging & Implementation
7. **Manage & Monitor**
   Blend On-Site & Remote Managed Services
8. **Review & Refine**
   QBRs: Metrics, CSI, Adoption, Service

Whitlock's Approach

Ensuring Simplicity & Consistency



Cloud & Global Support Services

Our Vision

We want to be Trusted Advisors with Recurring Enterprise-wide Relationships.

Vision.

To be #1 by putting our Customers first.

Mission.

To retain, acquire and develop mutually rewarding Customer partnerships and the most respected workforce in the industry.

We will accomplish this by delivering innovative visual communication solutions, consistency and superior value. Our teams will be devoted to the Whitlock culture, the Customer experience and increasing Shareholder value.

Understand > Promise > Deliver > Trust

Customer *Centric*

- Aligning with Customer Vision & Goals
- Using Consistent Enterprise Teams & Standards
- Delivering Technology Adoption Services
- Measuring & Rewarding Positive Outcomes

High *Performance*

- Maintaining Financial Performance & Stability
- Benchmarking & Developing Employees
- Reinforcing our Culture
- Maintaining Elite Manufacturer Status
- Growing Market Share

Transformational *Change*

- Setting Benchmarks for Operational Excellence
- Implementing Scalable Sales & Delivery Models
- Driving Accountability & Continuous Change
- Automating our Business Processes with Technology

Service *Orientation*

- Optimizing Local, National & Global Delivery Models
- Focusing on Project Management Principles
- Building an Extensive Service Catalog
- Focusing on Quality Assurance

Our Culture

Culture is Real.

Our Founding Principles

Teamwork
Committed co-workers that have a passion for the success of our team

Integrity
In all business dealings

Healthy
Personal & business health drive sustainability

Giving
To employees in need, charities and the community

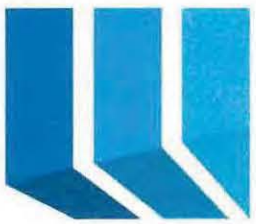
Empowered
To do the right thing in all situations

Family
Making your family a priority, while creating a family atmosphere at work

Respect
Respecting the roles & contributions of all team members

Reputation
Understanding you & the company only have one reputation

Competitive
Although we believe in a humble approach, we are driven to be the best



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Thank You!

Enterprise:

Focused on Consistency & Standards

Our Consistent **Whitlock – City of Austin Enterprise Team** will help you:

- Develop Standards
- Drive Adoption
- Bring Continuous Innovation
- Monitor & Measure Results
- Achieve a Consistent Customer Experience
- Realize Value from your Investments
- While being a great partner to the Consultant, Architect, GCs and other stakeholders

Whitlock & Cisco

How this Partnership benefits Project Success?

Whitlock is a certified Premier, ACAS, and Masters ATP reseller.

- Heavy commitment to training; staff credentials include Cisco CCNA, CCDP, CCVP and CCDA Certified Video Engineers
- Authorized on the entire Cisco TelePresence Suite including Acano, WebEx, and Spark
- Cisco Global Partner (GPN) Network provider serving as both a GPN certified agent and resale host for international project considerations
- Audio Visual Systems Integrator and Advanced Unified Communications (AUC) partner

cisco
Premier Partner

Whitlock & Crestron

How this Partnership benefits Project Success?

Whitlock is all in with Crestron:

- Elite partner to include:
  - Masters Silver & Gold; DMC D-4K, T-4K, E-4K; CLC P; CSS D; RL C; and CTI
- Engaged to perform design and integration on Crestron's Regional HQ
- Custom adoption integration with Fusion & PinPoint

Whitlock is currently partnering with Crestron to become the first certified partner for Fusion design and architecting. Whitlock is the only partner to begin this process.

CRESTRON

Elite Partner
Crestron RL Strategic Partner

- ✓ LEVERAGE
- ✓ DEPTH
- ✓ EXPERIENCE
- ✓ STRATEGIC
- ✓ STORAGE
- ✓ SUPPORT

To Simplify:

Simple
Standards
Scalable

- Our value proposition is create a consistent user experience across the enterprise *(local, regional, national or global).*

- Our most recent common customer trends and expectations:
  - **Simple, Standards & Scalable**

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AV Solutions
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Tab 2 Contact Person -- Authorized Negotiator

March 23, 2017

Sai Xoomsai Purcell
City of Austin Purchasing Office
124 W. 8th Street, Room 308
Austin TX 78701
512-974-3058
Sai.xoomsai@austintexas.gov

RE: Whitlock Authorized Negotiator for Solicitation No. PAX0141

Dear Ms. Purcell:

I am Whitlock's Authorized Negotiator for Solicitation No. PAX0141, the Audio Visual Equipment Design-Build in the Austin/Travis County Emergency Operations Center (A/TCEOC) and the Combined Transportation and Emergency Communications Center (CTECC). I am fully authorized to negotiate Contract terms and render binding decisions on Contract matters, and also to answer technical, price, and/or contract questions.

The Austin Whitlock office has many years of experience providing design-build and maintenance/support services to the City of Austin and specifically to the A/TCEOC and CTECC. Whitlock won a competitive bid in 2008 that resulted in City of Austin Contract NA090000079. This was extended each year by the City until it reached its maximum number of extensions in 2014. The A/TCEOC and CTECC have continued to use Whitlock on an ad hoc basis since 2014 through the present day for all of its day to day design-build and maintenance/support needs. Because of this long history, Whitlock has developed a deep understanding of the unique requirements of providing installations and support services for this truly mission-critical facility.

Please reach out via my cel phone at 214-505-4136, via fax at 972-815-1181, and via email at taylorc@whitlock.com, if I may answer any questions, provide any further information, or assist in the negotiation and decisions related to Contract terms and matters.

Always at your service,

Craig Orris Taylor
Senior Account Executive

Tab 3 - Business Organization:

- State full name and address of your organization and identify parent company if you are a subsidiary. Specify the branch office or other subordinate element which will perform, or assist in performing, work herein. Indicate whether you operate as a partnership, corporation, or individual. Include the State in which incorporated or licensed to operate. Is your firm legally authorized, pursuant to the requirements of the Texas Statutes, to do business in the State of Texas?

    1. Audio Fidelity Communications Corporation, DBA Whitlock
    2. Headquarters address: 12820 West Creek Parkway, Ste. M, Richmond VA 23238
    3. Whitlock Austin: 11100 Metric Blvd, Suite 200 Austin, TX 78758
    4. Type of Business: Corporation, Incorporated: Virginia; authorized to work in all 50 states
    5. Whitlock is legally authorized to do business in the State of Texas

- List and describe all bankruptcy petitions (voluntary or involuntary) which have been filed by or against your firm, its parent or subsidiaries, predecessor organization(s), or any wholly owned subsidiary during the past five (5) years. Include in the description the disposition of each such petition. Not Applicable. None, during the past five years, and none ever.

- List all claims, arbitrations, administrative hearings, and lawsuits brought by or against your firm, its predecessor organization(s), or any wholly owned subsidiary during the last five (5) years. The list shall include all case names; case, arbitration, or hearing identification numbers; the name of the project over which the dispute arose; a description of the subject matter of the dispute; and the final outcome of the claim. Not Applicable. None during the past five years, and none ever.

- List and describe all criminal proceedings or hearings concerning business related offenses in which your firm, its principals, officers, predecessor organization(s), or wholly owned subsidiaries were defendants. Not Applicable. None ever.

- Has your firm ever failed to complete any work awarded to you? If so, where and why? Never. Not Applicable.

- Has your firm ever been terminated from a contract? If so, where and why? No. Not Applicable.

- Has your business ever done business using another corporation/company name. Our corporation name has remained the same since our incorporation in 1955. Our Doing

Business As (“DBA”) name was The Whitlock Group until 2011, when it was simplified to Whitlock.

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Tab 4.1. **Executive Summary**: Respondent shall provide an Executive Summary, which gives in brief,
concise terms, a summation of the response. The Executive Summary should include the following information:
A summary narrative of the Respondent's overall experience providing integrated video solutions to governments, including (1) number of years' experience providing services to public safety agencies; and (2) description of specific experience, technical expertise, and ability to provide services and deliverables identified in Section 0500 - Scope of Work (3 pages or less).

Audio Fidelity Communications Corporation, doing business as Whitlock, has been in business since 1955. We began providing integrated video solutions to governments almost immediately after our incorporation, but back then, the video solutions were 8mm and 16mm film projectors, slide projectors, and overhead projectors.

When video projection became commercially available in the 1980's, Whitlock began offering CRT video projection systems with computer video interfaces.

When video projection moved into LCD projection and DLP projection in the 1990's, Whitlock began offering LCD and DLP projection and rear projection systems with analog video distribution systems and the first generation videowall processors from Barco, Jupiter, RGB Spectrum and Christie.

In the 21st century, Whitlock has installed hundreds of videowalls and videowall processors for a wide variety of command and control installations, for public safety customers, military customers, electric, water, phone and gas utility customers, data center customers, traffic management centers, executive briefing centers, and corporate supply chain customers. Our first installation of a Video over IP distribution system for a control room was for New Mexico Department of Transportation in 2006, still a customer today. Later, in 2007-2011, Whitlock designed and installed the Video over IP Distribution System for the City of Seattle, with endpoints at the Seattle EOC, Seattle Public Utilities, Seattle Police Department Fusion Center, and the US Coast Guard Seattle Harbor facilities; still a customer today.

Whitlock began tracking the progress of the Austin Combined Traffic and Emergency Command Center (CTECC) before construction began. Whitlock held our first meeting with TRW personnel in a job trailer at the jobsite in 2001. Whitlock bid unsuccessfully on both RFP's that came out in

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2002 for work at CTECC; we did not have an Austin office at that time. In 2004, Whitlock opened our Austin office. In 2006, Whitlock began working with CTECC on technology refresh projects and on maintenance and repair projects. In 2009, Whitlock won a competitive bid with the City of Austin to provide ongoing maintenance, service and technology refreshes at Austin CTECC. That contract was renewed the maximum amount of renewals, five times, and during that time, Whitlock maintained all the equipment in the facility, including the 60 cube Mitsubishi videowall, the four Electrosonics processors, and all the miscellaneous projectors, video, audio and control systems in the facility. Whitlock also provided dozens of small and medium sized design-build installations, and we still work with Austin CTECC personnel on ongoing technology refreshes up to the present day.

Because of this long history working with Austin CTECC, Whitlock is familiar with all aspects of working in this mission-critical facility. Whitlock's Austin technical operations and field service personnel are familiar with the protocols, the personnel, and the existing technology systems.

If selected, Whitlock would already be a long way down the learning curve on this complicated project. Our long and successful history of working with the men and women of Austin CTECC will certainly help us deliver this fully integrated network-based audiovisual system that is completely digital and scalable.

Whitlock has provided provided two proposals for your consideration. The first proposal is for a Barco CMS/Transform N solution, which is called out in the RFP. The second proposal is for a Jupiter Canvas/Catalyst solution, which is an approved equal to the Barco CMS/Transform N Solution. One distinct advantage to the Jupiter Canvas/Catalyst solution is the ability to both SEND and RECEIVE and ANNOTATE digital video, to and from authorized and licensed remote digital devices, such as laptops, tablets and smart phones. A floating pool of permanent licenses enables first responders to send video and make SIP calls back to CTECC from their smart phones, tablets and laptops. There is not a limit to the number of licenses that the system can accommodate.

Whitlock's proposals both provide for all required training and commissioning by the chosen manufacturer, and the proposals also include recommended critical spares. Whitlock also includes Whitlock's Priority Service Plan (PSP) and our own training, which we brand as our Technology Adoption Services (TAS). All Whitlock work will be provided by our Austin office.

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Tab 4.2.1 Prior Experience

Prior Experience and References: 0500 - Scope of Work – Your firms will be evaluated based on each of the deliverables listed under Section 0500 – Scope of Work. Provide information on the following:

- Previous work with Public Safety Agencies

Whitlock has worked with the FBI, FEMA, Dallas Police Department, Fort Worth Police Department, Arlington VA 911 Center, City of Seattle EOC, Austin CTECC, Texas Department of Public Safety, Pensacola EOC and numerous other Public Safety Agencies.

- Previous work within highly secured facilities

Whitlock has worked for NASA, Sandia National Laboratories, DEA-EPIC, US Army JTFN, FORSCOM, TRADOC, Entergy, Kansas City Board of Public Utilities, CPS San Antonio, Austin CTECC, TXDPS TDEM SOC, and numerous other highly secured facilities.

- Previous work and experience with segmenting video viewing and permissions with roles-based security

Whitlock has provided Barco CMS and Transform N implementation at Capital One Bank for their Network Operations Center in Virginia.
Whitlock has provided the design and procurement of a Jupiter Catalyst/Canvas solution for the City of Grand Prairie Traffic Management Center, with installation to be completed in April 2017.

- Previous work with integrating multiple, disparate video sources into one seamless, IP based video management solution

Whitlock designed and installed the Texas Department of Public Safety's Texas Division of Emergency Management Statewide Operations Center with a new SVSi video management solution, with over 80 nodes, in Austin TX.
Whitlock designed and installed the New Mexico Department of Transportation's Statewide Traffic Management Center with new Jupiter Catalyst 4500 processors for three Mitsubishi videowall systems. Sources are approximately 100 streaming video traffic cameras from around the state.
Whitlock designed and installed the new Southwest Airlines NOC, their central flight operations center/ground operations center, in Dallas Texas, with nearly 100 inputs and 45 displays, using Crestron DM as the IP based video management solution.
Whitlock designed and installed the City of Fort Worth Police Department's Fusion Center, using Christie Phoenix as the IP based video management solution.

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Tab 4.2.2 Client References

Texas Department of Public Safety Texas Division of Emergency Management Statewide Operations Center (TX DPS TDEM SOC)

Number of Personnel at TX DPS TDEM SOC when not under activation is approximately 40; when activated it is approximately 150.

Contact: Michael Ouimet, O 512-865-8041, M 512-921-9671, michael.ouimet@dps.texas.gov

Project begun in 2015, completed 2016

Project Budget approximately $550,000.00

The TX DPS TDEM SOC is the Emergency Operations Center for the State of Texas. This is where the Governor of Texas is during declared statewide emergencies. Many other agencies locate here during statewide emergencies and for training. Whitlock began providing audiovisual integration services for the TX DPS TDEM SOC in 2006, and we continue to work there till the present day.

Whitlock won a competitively bid opportunity for TX DPS TDEM SOC to replace their legacy analog RGBHV audiovisual infrastructure with an SVSI 2000 series digital infrastructure. The project also involved relocating four Sony projectors from the SOC to Building B TDEM offices on the same TX DPS Campus at 58015 Guadelupe, and connecting Building B TDEM offices via SVSI digital infrastructure to the SOC. Whitlock also provided and integrated with SVSI digital infrastructure four new Sony 7000 lumen laser phosphor projectors firing upon a new single Draper front projection screen at the TDEM SOC, and provided new SVSI display wall control to an existing Christie 6x2 Videowall at the TDEM SOC. Overall control for entire system is via Crestron control provided by Whitlock. Whitlock also provided new Biamp audio digital signal processing, integrated owner furnished Polycom VTC systems, and used owner furnished Apple iPads for Crestron control interfaces in some rooms. Project is covered by Whitlock Priority Service Plan with preventive maintenance and emergency onsite service with guaranteed SLA's.. Please see attached Vendor Performance document, which states: "Great service and product."

Whitlock was successful in working with TX DPS TDEM to flexibly accommodate their emergency use of the center. Flexibility and communication were key to the success of this project. Project completed on time and on budget.

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AV Solutions
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City of Austin City Hall 10-1 Audiovisual Infrastructure Upgrades

Number of personnel at Austin City Hall is approximately 500.

Contact: David Smythe-MacAulay, O 512-974-7152, david.smythe@austintexas.gov

Project begun in 2014, finished in 2015.

Project budget approximately $650,000.00.

Austin City Hall is the center of government for Austin, Texas. The Council Chambers, Boards and Commissions Meeting Room, Channel 6 Studios, over twenty conference rooms, the Mayor and City Managers Offices, are all located here.

A bit of history: Whitlock won a competitive bid back in 2004 to provide all the original audiovisual and broadcast equipment and services when Austin City Hall was built. Winning that project is what spurred Whitlock to open a bricks and mortar office in Austin in 2004.

In 2014, the City of Austin increased the number of City Council members to ten, which required the Council Dais to be reworked to accommodate the additional members. The City decided that it would be a good time to convert the Austin City Hall audiovisual system from its original analog signal distribution to modern digital signal distribution.

Whitlock won a competitive bid in 2014 to do this work. New Crestron Digital Media was provided and installed, replacing old analog RGBHV systems. New Biamp audio digital signal processors were provided and installed. New Sharp and Samsung displays were provided and integrated, as were some Sharp interactive displays. New Shure and Audio Technica microphones were installed and integrated. A new Crestron control system was provided and installed. The City also purchased a three year Whitlock Priority Service Plan to provide ongoing preventive maintenance and emergency onsite response with guaranteed SLA's.

Whitlock subcontracted Bernard Morgan of ICS+ to do all the Crestron programming on this project. Based on our experience working with Bernard on Austin City Hall, we propose working with him again on the A/TCEOC and CTECC project.

Whitlock installation schedule had to accommodate constant meetings in Council Chambers and Boards and Commissions. Flexibility and communication were keys to success. Project was completed on time and on budget.

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State of New Mexico Department of Transportation (NMDOT) Statewide Traffic Management Center (TMC)

Number of personnel at NMDOT TMC is approximately 25.

Contact: Charles Remkes, O 505-222-6554, M 505-490-3308, charles.remkes@state.nm.us

Project begun in 2014, finished in 2015.

Project budget approximately $360,000.00, with approximately $60,000.00 annual service agreement.

A bit of history: Whitlock won a competitive bid when the NMDOT TMC was built in 2006, and we have maintained a Whitlock Priority Service Plan to maintain that equipment for the past 10 years. NMDOT has added Whitlock to an NMDOT statewide purchasing agreement to allow them to sole source Whitlock for audiovisual goods and services.

In 2014, NMDOT decided to replace the original Jupiter display wall processors and digital video streaming decoders in the TMC. These had originally been provided and installed by Whitlock in 2006. NMDOT asked for a phased approach to the replacement of these processors, which controlled multiple Mitsubishi videowalls at the TMC and were used 24/7/365. For operational continuity, NMDOT asked Whitlock to replace the Jupiter processors with new Jupiter Catalyst processors in a phased approach. The Jupiter processors allow for the reliable display of of nearly 100 simultaneous streaming video feeds. The Jupiter ControlPoint software allows for the ease of creating and recalling layouts; some layouts are set to automatically be displayed for morning drive time, evening drive time, etc. The overall system is controlled by a Crestron control system installed and programmed by Whitlock. Whitlock did the work in four Phases over the course of 12 months. NMDOT has been so happy with Whitlock's work that they have arranged for a sole sourcing arrangement with Whitlock for the design and integration of their new Regional TMC which is in design phase now.

Whitlock had to work with NMDOT to reschedule around weather emergencies and traffic incidents. Flexibility and communication were paramount. Project completed on time and on budget.

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City of Austin CTECC

Number of personnel at CTECC is approximately 125.

Contact: John Porter, O 512-974-0982, M 512-663-3645, john.porter@austintexas.gov

A bit of history: My team at Whitlock bid on the original installation of Austin CTECC in 2002 and 2003. There were two separate bids, one for the big videowall system on the main operations floor, and the other for the rest of the building. We gave it our best shot, but we did not have a local Austin office at the time, and we lost both projects to different competitors.

In 2006, because of our successful Austin City Hall project, Whitlock was asked by CTECC to develop several new proposals. One of the first projects we did for CTECC back in 2006 was for Scott Swearingen in the EOC, when we replaced his original ceiling mounted front projectors with some new Sony projectors that are still in place and working today.

Whitlock was awarded a competitive bid to provide all audiovisual goods and services to Austin CTECC which resulted in City of Austin Contract NA090000079 that began in January 2009. This was extended each year by the City until it reached its maximum number of extensions in 2014. Austin CTECC has continued to use Whitlock on an ad hoc basis since 2014 and on through the present day for nearly all of its day to day design-build and maintenance/support needs. Because of this long history, Whitlock has developed a deep understanding of the unique requirements of providing installations and support services for this truly mission-critical facility.

Whitlock has updated and refreshed numerous small conference rooms at CTECC. Whitlock introduced CTECC to Smart Board Technology and Barco Click Share technology.

Systems have been installed in the EOC, 911 Call Center, Fire Center, Room 270, Room 253 B, Room 317, and on the Operations Floor. Whitlock introduced CTECC to Smart Board interactive displays, Crestron FlipTop table boxes, Crestron DM, and Barco ClickShare wireless connectivity. For many years, Whitlock has provided preventive maintenance and emergency onsite response with guaranteed SLA's for CTECC.

Glenn Hegar
Comptroller of Public Accounts

Vendor Performance

Vendor Performance Form

What type:
Commodity/Service : C
Purchase Type: DELEGATED
Purchase Order No.: 405-16-P005115

To: (Vendor)
Vendor ID: 1540617014000
Vendor Name: THE WHITLOCK GROUP
Vendor Contact Name: Kristie Cantu
Vendor Address: 11100 METRIC BLVD STE 200E
Vendor City/State/Zip: AUSTIN, TX, 78758-4000
Vendor Phone: 512-280-3710
Vendor Email: cantuk@whitlock.com
Vendor Fax: 512-933-0291

From: (Agency/Co-op Member)
Agency Name: DEPARTMENT OF PUBLIC SAFETY
Agency Address: 5805 N LAMAR BLVD
Agency City/State/Zip: AUSTIN, TX, 78752
Agency Contact: BARBARA KELLEY
Agency Phone: 512 486-6464
Agency Email: BARBARA.KELLEY@DPS.TEXAS.GOV

Performance Issue Codes:
(310) order or service completed satisfactorily
(399) Vendor commended

Resolution Date:

Requisition No: 405-16-R037769
PO Date: 05/25/2016
Class/Items or Contract ID: 72641

Detailed explanation:
Great service and product

Resolution comment:

A copy of this Vendor Performance Form must be mailed or faxed to the vendor for review. The vendor has 14 days from the date it was submitted (10/03/2016) to comment on or provide any convincing evidence to refute the information provided by the ordering entity before the report is finalized and included in the Vendor Performance Tracking System. Vendor responses must be sent via email, postal mail or by fax to:

Vendor Performance
Texas Comptroller of Public Accounts
P.O. Box 13186
Austin, Texas 78711
Fax: 512-936-0041
Email: vendor.performance@cpa.state.tx.us

Please print this page!

Your VPF was successfully submitted on 10/03/2016. The vendor now has 14 calendar days to respond. Thank you.

> return to the Vendor Performance Page

> return to the Portal

> return to the Vendor Performance Tracking System Page

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4.2.3 **Project Manager:** Identify an individual to be assigned as Project Manager for this contract.
Provide a resume that includes (1) number of years of experience providing program and project management of the Respondent's video management solutions; (2) number of years of experience working with governmental entities, including public safety and emergency communication centers; (3) description of specific experience, technical expertise, and ability to provide services related to the listed deliverables identified in the solicitation document (Section 0500 – Scope of Work).

Whitlock's Project Manager will be Michael Bencivenga, who has been a full-time Whitlock employee in Austin since 2006.

Michael has over seven years of experience providing program and project management of Whitlock's video management solution.

For the past seven years, Michael has worked with numerous governmental entities, including:

The Texas Department of Public Safety, Texas Division of Emergency Management, Statewide Operations Center (TxDPS TDEM SOC): Worked several projects for this statewide emergency communications center in Austin, Texas.

Drug Enforcement Administration – El Paso Intelligence Center (DEA-EPIC): Worked several projects for this secure command and control facility at Fort Bliss in El Paso, Texas.

US Army, Joint Task Force North (US Army JTFN): worked several projects for JTFN, which is tasked with supporting DEA-EPIC at Fort Bliss in El Paso, Texas.

City of Austin, Austin City Hall – worked numerous projects at Austin City Hall.

City of Austin, Austin CTECC – did installation of current projectors that are in the Main EOC Room 320, as well as several other installations at this facility.

Michael has great communication and people skills, and has a score of certifications, including:

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List of Certifications:

- InfoComm International, Network AV Systems - 2014
- St. Edward's University, ITIL Foundation – 2014
- St. Edward's University, Microsoft Project Level 1 - 2013
- St. Edward's University, Microsoft Project Level 2 - 2013
- Biamp, Tesira - 2012
- St. Edward's University, Project Management Evening Certificate Program – 2011
- Crestron, DMC-E – 2010
- Crestron, DMC-D – 2010
- Synergetic Audio Concepts, Sound Reinforcement for Technicians, 2010
- Tandberg, Certified Engineer Level 1 – 2010
- Tandberg, Management – 2010
- Tandberg, Call Control Level 1 – 2010
- Tandberg, Endpoints – 2010
- RevoLabs, Certified Specialist – 2010
- Biamp, Audia – 2009
- InfoComm International, Certified Technology Specialist (CTS) – 2009
    - *CTS Renewed twice. Current expiration 2018.
- ClearOne – Certified Technical Specialist – 2008
- Crestron, Essentials of Crestron Programming – 2008
- Crestron, Configuration of Crestron Systems – 2008
- AMX, Programmer Level 1 – 2006

Michael graduated from Texas State University with a Bachelor of Arts in Mass Communications.

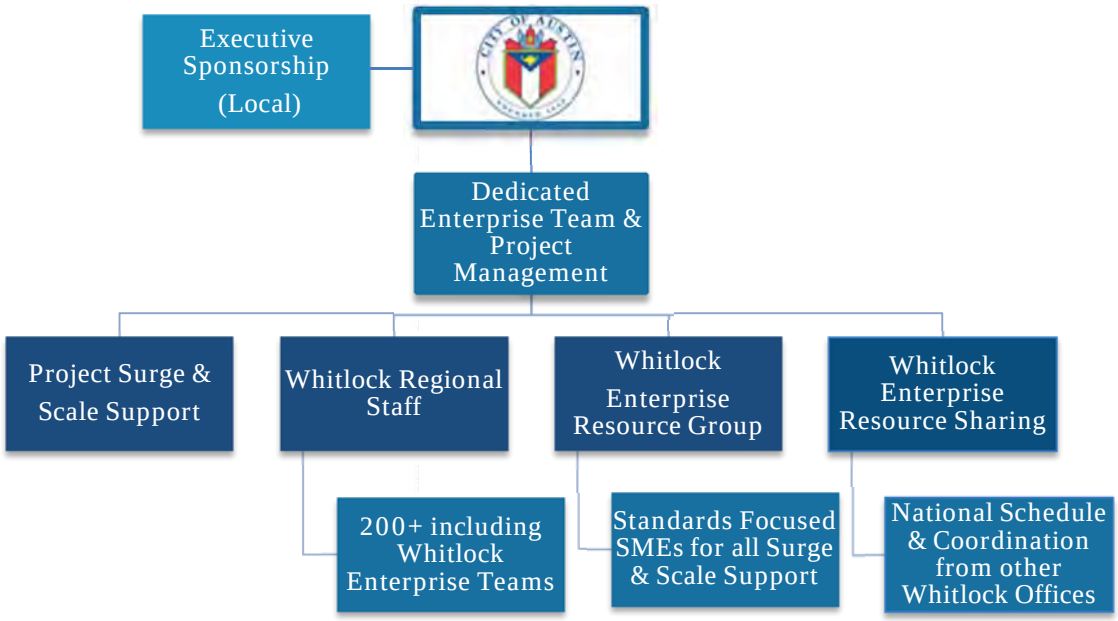
TAB 5 – CONCEPT AND SOLUTION

1.1 Provide a narrative that clearly describes the Respondent's overall approach to providing the services described in Section 0500 - Scope of Work including: (1) approach to management and coordination of teams; (2) approach to stakeholder involvement and information gathering; (3) approach to delivering requested services.

Staffing**Strategy**

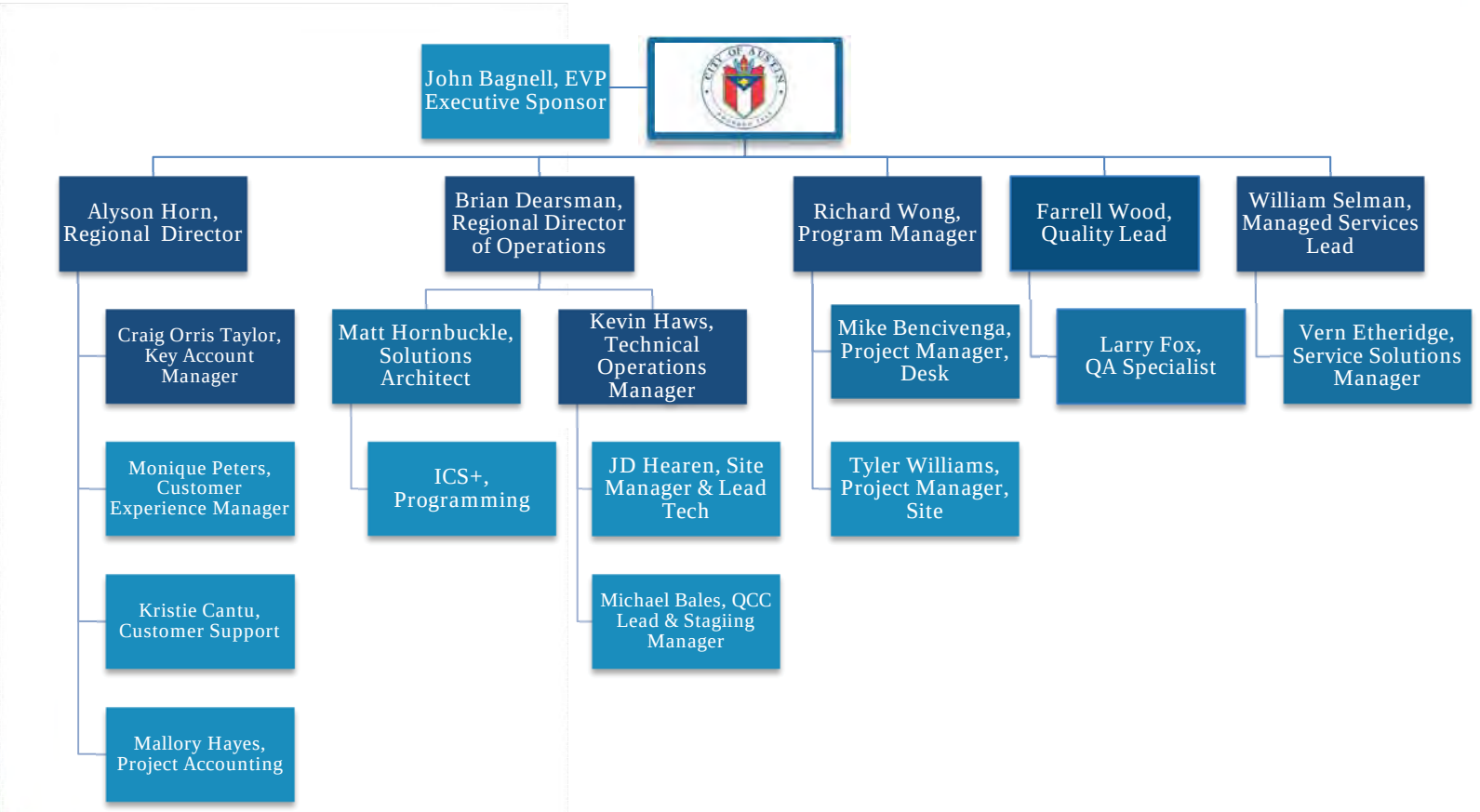
- We match the best resources to our customers based on experience and scope of a project.
- Assign Dedicated Enterprise Team to ensure consistent alignment to customer standards, culture and expectations – regionally, nationally and globally
- Engage National Resources & Specialists for Standards, Oversight & Account Strategy
- Organize Delivery Teams by System or Room Types to Drive Efficiencies

Staffing**Approach**



Enterprise**Team**

Whitlock has assigned a consistent core team to focus on all The City of Austin - related deliverables, regardless of scope, size and location. This team is listed below. There are many additional Enterprise and local resources supporting The City of Austin on an as-needed basis. For more details on our team, please refer to the section in the Deplyment Plan titled **Team Bios**.



Program**Management**

Whitlock has embraced the PMO methodologies, certifications and best practices around **Project and Program Management**. In addition to the growing number of PMP certifications Whitlock maintains on staff, we have invested in a national Program Management Office (PMO), and we train around these principles, along with the unique best practices that apply to audio, video and unified communications. The unique value of the Program Management role is to ensure consistent compliance with standards, best practices and culture, with the goal of delivering a consistent user experience across the enterprise.

Our Consistent Reporting includes:

- Daily Field Reports: Internal reporting of field progress, per room, includes issues affecting install.
- Weekly Field Reports: Report of field progress, per room/floor/building submitted weekly to the project team.
- QCC & Staging Report: Matrix report of in house rack build and staging management per room.
- Weekly OAC: Documented progress and minutes following weekly low voltage meeting

Our Regular Meetings include:

- Weekly Internal Meeting: Internal project team coordination to discuss progress, status, equipment and resources.
- Weekly Onsite (Crew) Meeting: Onsite team coordination and field operations.
- Weekly Low Voltage Meeting (OAC): Customer, Consultant, Architect and Contractor weekly sync-up.
- Programming Meeting: Control and system functionality, user interface, signage and IT infrastructure.

Pre-Deployment Team Training:

Three (3) total team orientations and pre-deployment trainings occur as part of our project plans.

- The first will be a team kick off at Whitlock's office for an understanding and clarification of the deployment plan, roles and responsibilities and the reporting structure for the project. Additionally, we will verify the badging and Onsite Orientation Safety Requirements are understood and fulfilled.

- Next is an Orientation at Whitlock's QCC, focusing on the staging, testing, logging and kitting process.

And a final orientation will take place at the project site, covering the site plan, timelines, roles and responsibilities and reporting structure for the project.

Procurement, Storage & JIT Deployment

Whitlock has the financial strength, manufacturer leverage, processes and facilities to address large equipment quantities, house long-lead items and procure project equipment in stages to ensure timeliness. Our processes avoid excessive time lags between purchase and first use, which can cause potential end of life or warranty issues.

Product procurement and shipping standards are done in accordance with material Manufacturer, and/or Distributor, recommendations and best practices.

- Multiple Quality Checks & Inspections
- Damaged Goods Review, Returns & Exchanges Handled Quickly
- Ample, Secure Storage for Long-Lead Items at All Locations

Material with special handling requirements will be identified and tagged early. Materials are stored by Manufacturer, Model Number and Project.

Picking and Material Deployment procedures will be implemented and maintained by Whitlock's Warehouse Manager. Material transferring out of Whitlock Warehouse will be double/triple checked for Model Number, Quantity, and Serial Number.

Whitlock's Austin office has sufficient space to securely store, stage and test equipment for this project.

Field**Deployment**

Site specific delivery conditions are to be assessed by the Whitlock project team so that delivery procedures are identified and followed. Upon delivery, all equipment will be checked to ensure that no damage was sustained during shipment. Delivery documentation is to be completed and maintained so that an accurate record of material delivered is available. Material being delivered is checked for correct Model Number, Quantity, and Serial Number.

Client**Acceptance**

The Whitlock project team will identify the project stakeholder expectations and requirements and ensure that all project-based requirements are met during the Client Acceptance process. This milestone verifies acceptance of the project has been issued by the owner or owner's representative, acknowledging that the project is 100% complete and all required deliverables, services, verification lists, testing, and signoffs have been received, and all requirements defined in the project documentation have been satisfied and completed that occur at the completion of the closeout verification phase. No further project activity will take place after this milestone is verified.

Project**Closeout**

Project close out documentation will be assembled, formatted, and delivered to Project Stakeholders at completion of the project. Close out documentation will include product warranty information, Whitlock craftsmanship warranty information, System programming and configuration files, and System assembly and wiring details.

The Whitlock project team will identify project stakeholder expectation and requirements and ensure that all project based requirements have been met during the Project Close Out process.

TAB 6 – IMPLEMENTATION, TESTING, AND QUALITY ASSURANCE

1.1 Provide a detailed explanation of the approach you will use in order to minimize down-time in the A/TCEOC and on the CTECC Operations Floor during the implementation of the upgrade. Describe how the "go-live" will be executed and how affected stake-holders will be prepared for this transition, including knowledge transfer activities. Add any transition/cut-over plan and roll back recommendations that may be relevant to this project. Specify proposed demarcation of responsibilities between the City and the Vendor. The plan should explicitly include those activities necessary to prepare City personnel for post-implementation roles.

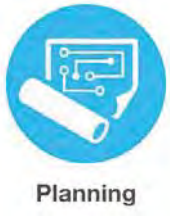
Whitlock's understands the CTECC is a mission critical operation and that downtime must be minimized as much as possible during the AV system upgrades. Throughout the installation, we will work closely with CTECC personnel providing them with daily reporting of progress and work plans for the following day. This will ensure that all stakeholders are aware of system functionality at all times.

To ensure downtime is minimal, Whitlock will take the following steps during system installation:

- The existing analog video system can stay in place. This will allow the displays, old or new to continue to be used during the installation process. Once the new IP based video system is in place, the cutover can take place.
- In the case displays are needed during the cutover, the source will be directly wired to the displays.
- The existing audio system will stay in place until the cutover. In the case the audio system needs to be used during the cutover, Whitlock intends to provide a portable PA system.
- Crestron room control will not be available from the start of the project until the cut-over.

Once the new systems are ready for complete cutover Whitlock will coordinate with CTECC personnel to create a custom and detailed action plan before the old system is taken offline. We will address action items for all stakeholders, length of time for each step in the process, and recovery plan in case there are unforeseen circumstances that arise when the new system is brought online.

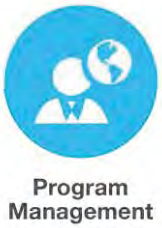
Project**Planning**



Whitlock has been planning for the potential of this The City of Austin project and will escalate that planning process upon potential award. Some of these efforts include:

- Full customer & project requirements review
- Team training & Orientation with key partners
- System(s), Badging & Safety Training
- Site Walk-Through/Review

Program**Management**



Whitlock has embraced the PMO methodologies, certifications and best practices around **Project and Program Management**. In addition to the growing number of PMP certifications Whitlock maintains on staff, we have invested in a national Program Management Office (PMO), and we train around these principles, along with the unique best practices that apply to audio, video and unified communications. The unique value of the Program Management role is to ensure consistent compliance with standards, best practices and culture, with the goal of delivering a consistent user experience across the enterprise.

We develop a Custom Distribution List:

- External team lists for coordination with customer & key stakeholders: CityOfAustin@whitlock.com

Our Consistent Reporting includes:

- Daily Field Reports: Internal reporting of field progress, per room, includes issues affecting install.
- Weekly Field Reports: Report of field progress, per room/floor/building submitted weekly to the project team.
- QCC & Staging Report: Matrix report of in house rack build and staging management per room.
- Weekly OAC: Documented progress and minutes following weekly low voltage meeting

Our Regular Meetings include:

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- Weekly Low Voltage Meeting (OAC): Customer, Consultant, Architect and Contractor weekly sync-up.
- Programming Meeting: Control and system functionality, user interface, signage and IT infrastructure.

Procurement, Storage & JIT Deployment

Whitlock has the financial strength, manufacturer leverage, processes and facilities to address large equipment quantities, house long-lead items and procure project equipment in stages to ensure timeliness. Our processes avoid excessive time lags between purchase and first use, which can cause potential end of life or warranty issues.

Product procurement and shipping standards are done in accordance with material Manufacturer, and/or Distributor, recommendations and best practices.

- Multiple Quality Checks & Inspections
- Damaged Goods Review, Returns & Exchanges Handled Quickly
- Ample, Secure Storage for Long-Lead Items at All Locations

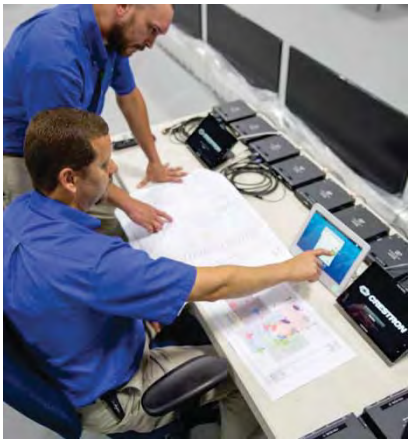
Material with special handling requirements will be identified and tagged early. Materials are stored by Manufacturer, Model Number and Project.

Picking and Material Deployment procedures will be implemented and maintained by Whitlock's Warehouse Manager. Material transferring out of Whitlock Warehouse will be double/triple checked for Model Number, Quantity, and Serial Number.

Whitlock's Austin office has sufficient space to securely store, stage and test equipment for this project.

1.2 Provide an explanation of your testing methodology and explain how this approach will be used in this project. List and describe the tools to be utilized. Provide samples of recent test plans or scripts that clearly show the process used for testing and system test results. Include a detailed test plan that describes how the system will be fully tested against agreed upon use cases, how results will be documented and managed, and how defects will be resolved. Include acceptance criteria or describe how acceptance criteria are established for all areas of testing. Address how testers are prepared for, and conduct: functional, regression, usability, and user acceptance testing. Specify proposed demarcation of responsibilities between the City and the Vendor.

Quality**Control**



Whitlock's plan to efficiently test and deliver the AV systems resides with our local expertise from our **regional quality control center**. Our Quality Assurance Team will stage, build and test all AV systems ensuring all systems are pre-checked, pre-configured and working properly before we deliver to the jobsite.

The project team will define and document all organizational and project specific quality standards and include these details in our overall project plan. Our **Mock Up and Staging** process is configured in accordance with InfoComm International 10:2013 and AVAQ AV9000 Best Practices, and customized to meet customer requirements.

A **Staging Quality Assurance Checklist** is completed and added to the project documents. The Checklist verifies that the AV system is approved for Field Deployment, and includes:

- Equipment Rack Build, Terminations, and Labeling
- Table Top and Portable Device Configuration
- Audio Systems Setup and Configuration
- Video Systems Setup and Configuration
- Control Systems Setup and Configuration
- AV Network and Software Setup and Configuration

A sample abbreviated section of the Staging QA Checklist:

Whitlock Quality Assurance Staging Checklist

Project Name
Project ID
Project Manager
QAS / Lead Technician

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#	Test Name	Description	Pass/Fail	Tools	Comments
Equipment Rack					
3	Power	All devices are powered and grounded per the project specifications.			
8	Inspect Connectors	Connector terminations are solid in their connectors, visually inspected, and in compliance with Whitlock termination standards.			
11	Photograph	Take digital photos of the front and rear of each completed rack. For large racks, 2 pictures are needed for top half and bottom half.			
Setup and Configure Audio					
18	Speaker Setup	Speakers matching amp output, for 70V conenct one per zone/room for testing			
19	Mic Setup	Setup a min of 2 conferencing microphones including mute and indicator logic functions			
20	Audio DSP	Load all audio DSP site files, and configure audio gain structure appropriate for staging. Pre-EQ speakers			

I hereby certify that the system installed is complete, all items on the above checklist have been completed, that rack elevations are as specified, and that all engineering, fabrication, programming, installation, testing and checkout is complete and in accordance with the specification in product, practice, and performance, and that the system is ready to be placed into service.

APPROVALS		DATE	COMMENTS
Lead Tech/Stage Mgr. Signed:			
QA Specialist Signed:			

Whitlock's **Quality Control Center Lead** acts as the single POC for all IP address coordination and documentation for the project. This allows us to manage, document, and control all device configuration within our controlled environment. Typical documentation could include items such as device names, location, serial number, Port numbers, etc. This is an important part of the project close out documentation.

Pre-Deployment Team Training:

Three (3) total team orientations and pre-deployment trainings occur as part of our project plans.

- The first will be a team kick off at Whitlock's office for an understanding and clarification of the deployment plan, roles and responsibilities and the reporting structure for the project. Additionally, we will verify the badging and Onsite Orientation Safety Requirements are understood and fulfilled.

- Next is an Orientation at Whitlock's QCC, focusing on the staging, testing, logging and kitting process.

- And a final orientation will take place at the project site, covering the site plan, timelines, roles and responsibilities and reporting structure for the project.

Field Installation, Testing, Commissioning & Acceptance

Field Deployment

Site specific delivery conditions are to be assessed by the Whitlock project team so that delivery procedures are identified and followed. Upon delivery, all equipment will be checked to ensure that no damage was sustained during shipment. Delivery documentation is to be completed and maintained so that an accurate record of material delivered is available. Material being delivered is checked for correct Model Number, Quantity, and Serial Number.

Uniformed Teams

Whitlock installation technicians will wear uniforms, helping to easily identify them and provide a professional look throughout a project.

Final Testing and Commissioning

Final Testing and Commissioning procedures will be identified and outlined by the Quality Assurance Manager and Project Team lead.

- Initial testing procedures will completed by Technical Team Lead to ensure that a system meets initial requirements
- Subsequent testing will be completed by Quality Assurance Team to ensure system operates as intended.
- The Quality Assurance Manager will ensure the **Field Commissioning Quality Assurance Checklist** is completed and added to the project documents.

Our Project Acceptance and Closeout process involves:

- Audio Systems Commissioning
- Video Systems Commissioning
- Control Systems Commissioning
- AV Network Commissioning
- General Commissioning tasks including Safety, Cleaning, Inventory, and Final Inspections.

System Performance Verification

The Whitlock Quality Management Plan evaluates and verifies system requirements from the following functional categories to ensure compliance with InfoComm and AVAQ best practices and standards. The quality assurance specialist will provide daily quality management and conduct process audits on a weekly basis, monitor process performance metrics, and assure all processes comply with project and organizational standards. If discrepancies are found, the quality manager will meet with the Project Manager and review the identified discrepancies.

- **Audio Performance**
  Verification items within this category verify the audio system's performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address capture, transformation, or reproduction of program audio or voice; audio signal management; acoustic environment; and loudspeaker operations shall be listed in this section.

- **Video Performance**
  Verification items within this category verify the video system's performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address capture, transformation, or reproduction of video; video signal management; and camera operations shall be listed here.

- **Audio/Video Performance**
  Verification items within this category verify linked audio and video system elements that cannot be separated due to their functional requirements. These items verify performance, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address linked audio and video system elements shall be listed in this section.

- **Cable Management, Termination, and Labeling Control Performance**
  Verification items within this category verify the workmanship for installation and management of all systems' cabling, labels, and connections conformance to requirements provided within project documentation. Project-specific verification items that address site cabling, rack cabling, furniture cabling, and loose cables shall be listed.

- **Electrical**
  Verification items within this category verify the control system's performance, usability, stability, and conformance to requirements provided within project documentation. Project-specific verification items that address system communications interface and control devices, mobile device integration, external system integration (e.g., life safety, security, environmental), automated system functions, and user interface operations shall be listed in this section.

- **Information Technology**
  Verification items within this category verify the Information Technology elements of the system perform, provide stability, and conform to requirements provided

within project documentation. Project-specific verification items that address network integration and performance, IT systems integration, IT security, unified communications, and software licensing shall be listed in this section.

- **Operations and Support**
  Verification items within this category verify that operational planning and handover of elements of the system have been conducted and conform to requirements provided within project documentation. Project-specific verification items that support planning for operations or address handover elements shall be listed in this section.

- **Physical Environment**
  Verification items within this category verify that built elements that interact with a system perform and conform to requirements provided within project documentation. Project-specific verification items that address structural reinforcement, lighting, enclosures, finishes, and other built elements shall be listed in this section.

- **Physical Installation**
  Verification items within this category verify that the workmanship for installation of all the equipment within the system except cabling conforms to requirements provided within project documentation. Project-specific verification items that address containment, installation, security, and equipment cleanliness shall be listed in this section.
- **Serviceability**
  Verification items within this category verify that the system is serviceable in conformance with the requirements provided within project documentation. Project-specific verification items that address system accessibility, access panels, and rack clearance shall be listed in this section.

- **Wireless**
  Verification items within this category verify that all aspects of wireless audio, video, and control systems perform and conform to the requirements provided within project documentation. Project-specific verification items that address radio frequency, infrared, Bluetooth®, Digital Enhanced Cordless Telephony (DECT), and proprietary wireless systems shall be listed in this section.

- **System and Record Documentation**
  Verification items within this category verify that the system's project-specific record documentation has been completed. Any documentation should be delivered in electronic format wherever possible and practical. Project-specific verification items

that address drawings and specifications, test reports, manuals, and acceptance reports shall be listed in this section.

Client**Acceptance**

The Whitlock project team will identify the project stakeholder expectations and requirements and ensure that all project-based requirements are met during the Client Acceptance process. This milestone verifies acceptance of the project has been issued by the owner or owner's representative, acknowledging that the project is 100% complete and all required deliverables, services, verification lists, testing, and signoffs have been received, and all requirements defined in the project documentation have been satisfied and completed that occur at the completion of the closeout verification phase. No further project activity will take place after this milestone is verified.

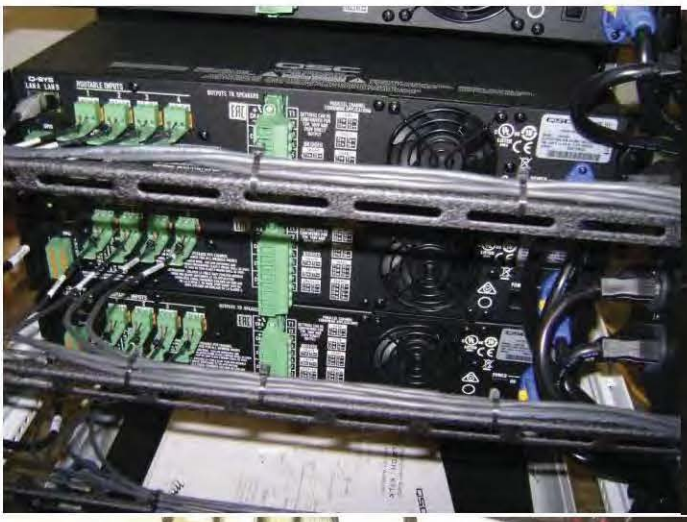
Project**Closeout**

Project close out documentation will be assembled, formatted, and delivered to Project Stakeholders at completion of the project. Close out documentation will include product warranty information, Whitlock craftsmanship warranty information, System programming and configuration files, and System assembly and wiring details.

The Whitlock project team will identify project stakeholder expectation and requirements and ensure that all project based requirements have been met during the Project Close Out process.

RACK PHOTOS

RACK PHOTOS



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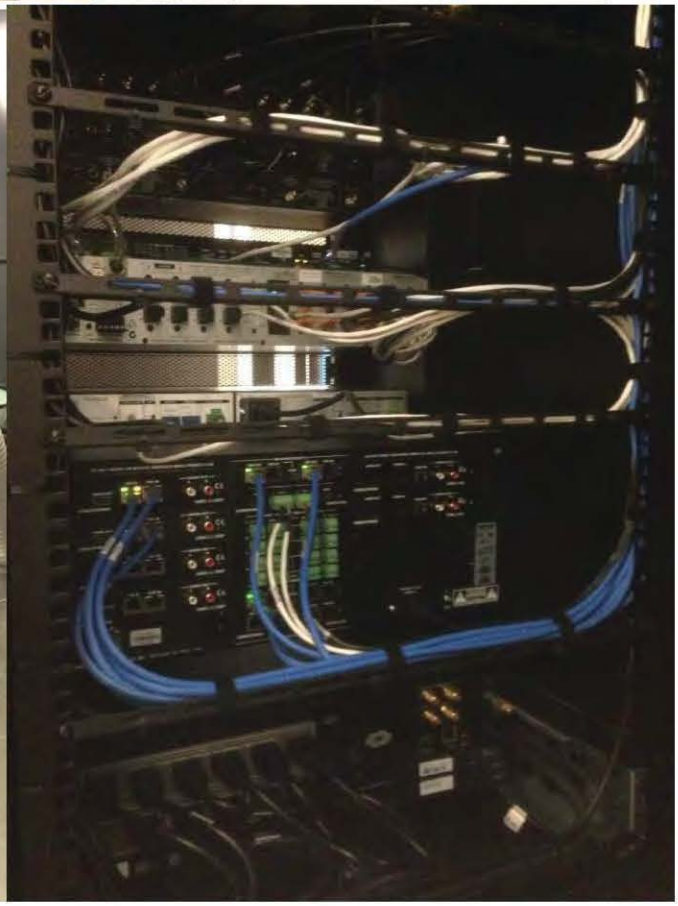

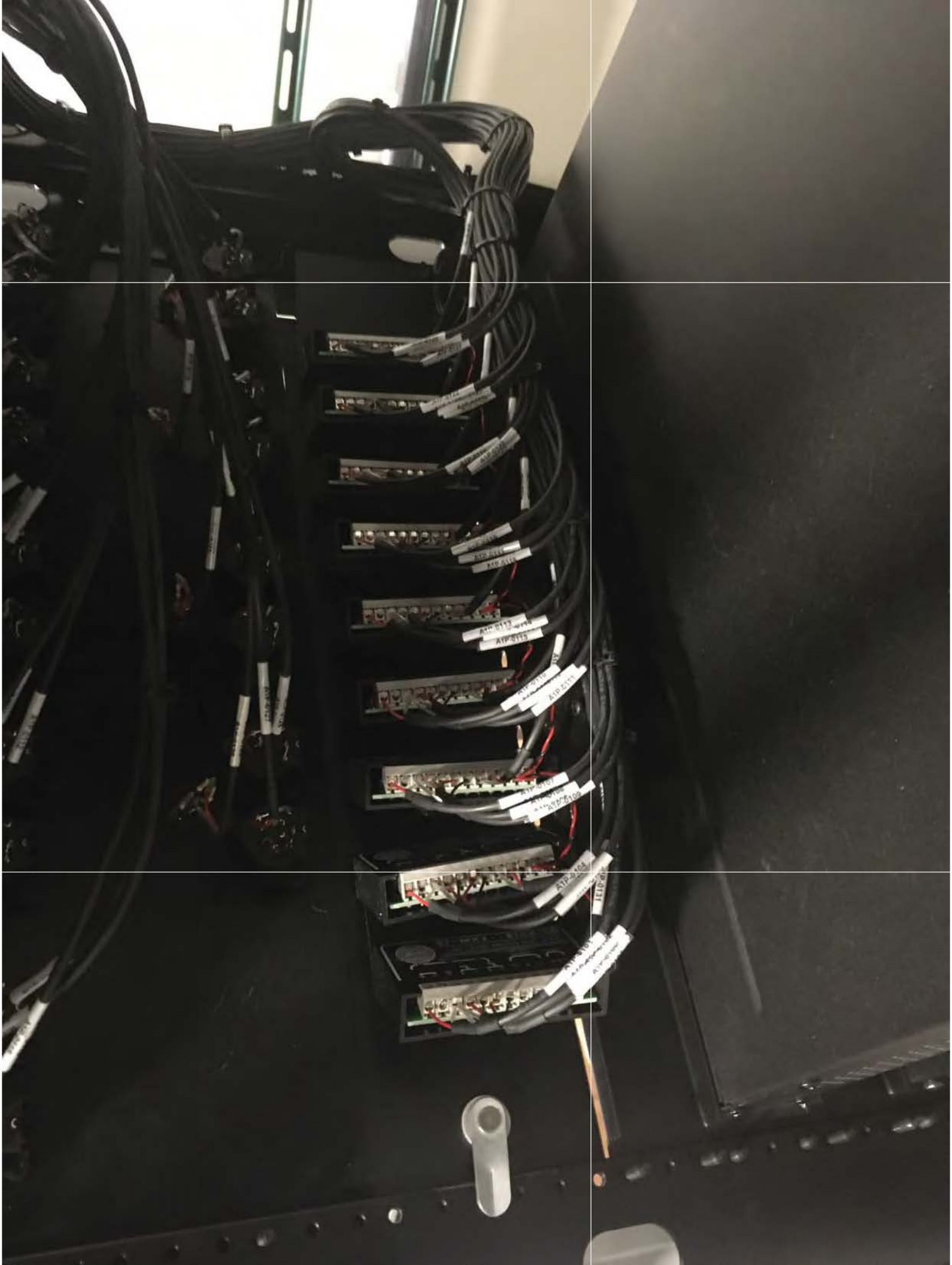


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TAB 7 – PROGRAM

Describe your technical plan for accomplishing required work. Include such time-related displays, graphs, and charts as necessary to show tasks, sub-tasks, milestones, and decision points related to Section 0500 - Scope of Work and your plan for accomplishment. Specifically indicate the following:

a. Describe the proposed project management methodology and how it will be used in this project. Provide evidence that this approach has resulted in successful projects in the past. Specify proposed demarcation of responsibilities between the City and the Vendor. Describe any communication strategies and best practices that would be employed as part of the solution implementation.

Project**Management**

Whitlock will provide professional project management as a key service to help ensure the success of the project. The Whitlock Project Manager will coordinate all activities related to this project and will serve as the primary point of contact.

The key to success for this project and all projects that involve mission critical and/or high profile integration of technology and strong coordination with various trades and project stakeholders is the ***consistent and proactive communications*** provided by Whitlock's Project Team. Whitlock project managers are trained in globally recognized project management fundamentals and have experience managing projects throughout all phases of a project lifecycle, including initiation, planning, executing, monitoring, control and closing.

The Whitlock Project Management Team has been trained and is required to provide excellent organization and communications to their projects, in addition to their technical training. We have many internal tools, processes and best practices in place to ensure that we communicate early, consistently and effectively. Including:

- Detailed project checklists – design assist/review, pre-project approved drawings, documentation, finalized scope of work, procurement schedules, billing format and schedules, etc.
- Weekly status reports to provide project updates, action items, procurement status, risks and milestones and needs from other trades.
- Whitlock internal and Customer project kick off meetings.
- Documentation of project flow, timelines and milestones.
- Strong RFI and change management processes and documentation, customized for project.

- Proactive schedule management and resource mapping in Microsoft Project and other custom Customer tools.
- Quality Management Plan – including change control procedures, quality control program, quality audits, etc.
- Detailed commissioning, training and final sign off plan, checklists and status reports.

Program**Management**

Whitlock has embraced the PMO methodologies, certifications and best practices around **Project and Program Management**. In addition to the growing number of PMP certifications Whitlock maintains on staff, we have invested in a national Program Management Office (PMO), and we train around these principles, along with the unique best practices that apply to audio, video and unified communications. The unique value of the Program Management role is to ensure consistent compliance with standards, best practices and culture, with the goal of delivering a consistent user experience across the enterprise.

Communications Management Plan

The Project Manager will take a proactive role in ensuring effective communications on this project and overseeing the Communications Management Plan. The communications requirements will be documented in the Communications Matrix developed upon award of this contract. The Communications Matrix will be used as the guide for what, how and when to communicate key information to the appropriate stakeholders.

Normally Stakeholders include all individuals and organizations that are impacted by the project. For the CTECC project we are defining a subset of the stakeholders as Key Stakeholders. These are the stakeholders with whom we need to communicate and who are not included in the other roles defined in this section. The Key Stakeholders includes executive management with an interest in the project and key users identified for participation in the project.

Project meetings will be scheduled at times approved by the Whitlock Project Manager and CTECC Sponsor. Agendas and meeting requests should be submitted with sufficient notice and precise expectations. All agendas shall go through the project manager.

Status reports for this project shall be submitted weekly along with look-ahead schedules as needed. Other project documents such as issue logs, action item lists, etc. will be submitted during regular project meetings.

We develop Custom Distribution Lists:

- Full internal customer team list: CityOfAustin@whitlock.com
- Internal + external team lists for coordination with customer & key stakeholders.

Our Consistent Reporting includes:

- Daily Field Reports: Internal reporting of field progress, per room, includes issues affecting install.
- Weekly Field Reports: Report of field progress, per room/floor/building submitted weekly to the project team.
- QCC & Staging Report: Matrix report of in house rack build and staging management per room.
- Weekly OAC: Documented progress and minutes following weekly low voltage meeting

Our Regular Meetings include:

- Weekly Internal Meeting: Internal project team coordination to discuss progress, status, equipment and resources.
- Weekly Onsite (Crew) Meeting: Onsite team coordination and field operations.
- Weekly Low Voltage Meeting (OAC): Customer, Consultant and Contractor weekly sync-up.
- Programming Meeting: Control and system functionality, user interface, signage and IT infrastructure.

b. Provide a description of your work program by tasks. Detail the steps you will take in proceeding from Task 1 to the final tasks. Indicate the subtasks (to provide detailed information and technical elements) for each major milestone.

Please see the Whitlock Sample Project Plan for this information.

c. Identify the points at which written, deliverable reports will be provided.

Please see the Whitlock Sample Project Plan for this information.

d. Indicate the amount of progress payments you will request upon successful completion of milestones or tasks, deducting twenty percent (20%), which will be paid upon final acceptance by the City.

Please see the Whitlock Sample Project Plan for this information.

e. Provide a statement of your compliance with all applicable rules and regulations of Federal, State and Local governing entities. The Proposer must state his compliance with terms of this Request for Proposal (RFP).

Whitlock will comply with all State, Local and Federal rules and regulations that apply to the work associated with RFP PAX 0141. More specifically, Whitlock will comply with all terms of RFP PAX0141, except as modified by Whitlock on the City of Austin Purchasing Exceptions Attachment A forms submitted with Whitlock's Response.

TAB 8- SUPPORT AND ONGOING SERVICE:

a. Describe the support model that is used to support the system. Specify proposed demarcation of responsibilities between the City and the Vendor. Provide a detailed list of the necessary resources and expertise, complete with personnel job descriptions, which shall be required for the City to maintain the system once implemented.

Support Model

- Whitlock will provide professional field support services to the City of Austin CTECC project – PAX0141. Services offered combine service desk support with priority dispatching and preventive maintenance checks and services for a complete service program designed to maintain your system in peak operating condition at all times. Field Support Services are coordinated from our National AVNOC facility located in Flower Mound, Texas. Your assigned Service Coordinator will provide incident management and oversight for the life of any support related issue. If you need service desk support, field service dispatching, parts ordered or equipment repairs, your service coordinator will manage the entire process. Whitlock will assign trained and certified field service technicians familiar with the installed systems and technical knowledge to meet the requirements of the RFP. The Field Service Technician provides technical support to customers through electronic dispatching, performs preventive and corrective maintenance on audiovisual and broadcast systems, provides technical support to projects as needed, and manages customer relationship from a service perspective by providing professional, courteous support at all times. Essential duties include;
- Answer all service calls in a timely manner.
- Provide excellent customer service at all times.
- Perform routine preventative maintenance checks and services to assigned audiovisual systems (service contracted customers) including software/firmware updates, as needed. Complete customer PM Report upon completion of PM checks.
- Update service tickets in a timely manner upon completion of service calls.
- Research parts, process Whitlock and manufacturer Return Material Authorization (RMA) requests, coordinate outside repairs, work with manufacturers, assist with phone support lines, provide technical support for sales, installation and system design staff, support Whitlock system designers and field service personnel, evaluate audiovisual system drawings, follow manufacturers' prescribed maintenance procedures and common industry practices to troubleshoot and resolve system problems.
- Balance mixer inputs, EQ rooms, and adjust delay channels as necessary to optimize audio system performance (typically, this is accomplished using state-of-the-art DSP technology).

- Color-balance and adjust geometry of large video walls; optimize image quality of projection systems.
- Test and troubleshoot control system functionality (may include Crestron, AMX, broadcast automation control and other IP-based control systems).
- Test and evaluate performance of video conference systems over ISDN (H.320) and IP (H.323) networks, including local camera and presentation source routing and control, and acoustic echo cancellation.
- Maintain an assigned base of service-contracted customers including proactively scheduling routine preventive maintenance visits and maintaining a strong working relationship with the customer based on trust and reliance.
- Continuously seek to improve knowledge of integrated audiovisual and broadcast communications systems. This includes extensive on-the-job, manufacturer and on-line training; personal research and professional development. ICIA CTS certified within six (6) months of employment and pursuing additional ICIA certifications on your own.
- May include after hours and on-call duties with guaranteed response times.

b. Provide a detailed five year support and maintenance plan including: methods of contact; support team availability; service levels and escalations; timeframes for supporting or delivering critical security patch updates, updated database or web browser versions after release; software/browsers/hardware supported; updated user guides on all major updates or system changes, and warranty information. Note that remote access to City resources shall only be permitted providing that authorized users have passed their Criminal Background Investigations (CBI), they are authenticated, data is encrypted across the network, and privileges are restricted.

Ongoing Support

As part of Whitlock's RFP response for ongoing support, Whitlock has provided our Priority Service Plan that includes one year in our Base Bid, plus 5 years of OPTIONAL ongoing service and support and addresses the requirements of the RFP for ongoing maintenance support. Please see attachment in Tab 8 titled Whitlock Priority Service Plan SOW – Austin CTECC RFP PAX0141 3.28.17.

c. Describe the roles/responsibilities and accountability (i.e. Service Level Agreements) with any sub-contractors connected with the system, including its implementation and support.

Sub Contractor Support

For this project, Whitlock will be using local Whitlock resources for the integration and ongoing maintenance and support of this project. No sub contractors have been considered for the deployment of this project. Whitlock has three field service representatives dedicated solely to service once installation is complete based out of our Austin office. Whitlock's field service representatives have been taking care of Austin CTECC since 2009.

d. Describe any planned releases and roadmaps associated with expanding or improving the system in the future.

Releases and Roadmaps for Improvements

As part of our ongoing support Model, Whitlock is a premier dealer for all manufacturers used for this project and leverages our relationships with these manufacturers to the benefit of our customers. As an example, Barco and Jupiter manufacturers provide modular systems where licenses, software and hardware warranties are annually renewable and covered under the terms of Whitlock's proposal for the first year. New features offered through hardware and software updates or releases will be offered to the City of Austin for consideration and can be renewed along with the Priority Service Plan each year for ongoing support and maintenance. Along with any annually renewable extended warranties, your assigned account manager will communicate with stakeholders on future technology roadmapping and lifecycle management of your AV estate.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

Certificate Number:
2017-237975

Date Filed:
07/18/2017

Date Acknowledged:

1 **Name of business entity filing form, and the city, state and country of the business entity's place of business.**
Audio Fidelity Communications Corporation doing business as Whitlock
Austin, TX United States

2 **Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**
City of Austin

3 **Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**
MA 5600 NA170000195
Audiovisual goods and services

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

5 **Check only if there is NO Interested Party.** [X]

6 **AFFIDAVIT**

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

MARY JESKO
Notary Public
STATE OF TEXAS
My Comm. Exp. August 13, 2019

Alyson Horn
Signature of authorized agent of contracting business entity

Sworn to and subscribed before me, by the said Alyson Horn, this the 19th day of July, 2017, to certify which, witness my hand and seal of office.

Mary Jesko — Signature of officer administering oath
Mary Jesko — Printed name of officer administering oath
Office Support Coord — Title of officer administering oath

City of Austin
SMBR
Small & Minority Business Resources
Opening the door to opportunities.

GOAL DETERMINATION REQUEST FORM

Buyer Name/Phone	Sai Purcell/512-974-3058	**PM Name/Phone**	Brenda Bernard/4-6517
Sponsor/User Dept.	CTECC	**Sponsor Name/Phone**	Robert Turner/ 512-974-0759
Solicitation No	PAX0141	**Project Name**	Audio Visual Equipment, Design, Installation Services
Contract Amount	$2,000,000	**Ad Date (if applicable)**	02/06/

Procurement Type

☐ AD – CSP	☐ AD – CM@R	☐ AD – Design Build
☐ AD – Design Build Op Maint	☐ AD – JOC	☐ IFB – Construction
☐ IFB – IDIQ	☐ PS – Project Specific	☐ PS – Rotation List
☒ Nonprofessional Services	☐ Commodities/Goods	☐ Cooperative Agreement
☐ Critical Business Need	☐ Interlocal Agreement	☐ Ratification
☐ Sole Source*		

Provide Project Description**

The Austin/Travis County Emergency Operations Center (A/TCEOC) and Combined Trasportation & Emergency Communications Center seeks proposal for a fully integrated, operational and turnkey audiovisual system.
The scope of work include the following:
-System design
-Software licensing and configuration
-Audio Visual Equipment
-Equipment and cabling installation
-Technical design documents and as-built drawings
-Controls programming and graphics (due to the complixity of this requirement - only Masters Gold Level Programmers in the State of Texas (Pepperdash and ICS+) and provide these services.
-Full implementation and integration of a functional audiovisual system
-Training and training materials for the new system

Project History: Was a solicitation previously issued; if so were goals established? Were subcontractors/subconsultants utilized? Include prior Solicitation No.

A similar RFP (PAX0138) was previously issued. PAX0138 was cancelled. This RFP will include the expansion need for CTECC as well as A/TCEOC

List the scopes of work (commodity codes) for this project. *(Attach commodity breakdown by percentage; eCAPRIS printout acceptable)*

84084 Video and Audio System, 78%, 91509 Audio/Video Implementation 10%, 92040 Programing Services 5% (see comment under project description), 92031 Hardware Installation Services 5%, 28796 AV Wire and Cable 2%

Sai Xoomsai Purcell	2/6/2017
Buyer Confirmation	**Date**

** Sole Source must include Certificate of Exemption*
***Project Description not required for Sole Source*

FOR SMBR USE ONLY

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GOAL DETERMINATION REQUEST FORM

Date Received	2/6/2017	**Date Assigned to BDC**	2/6/2017
In accordance with Chapter2-9(A-D)-19 of the Austin City Code, SMBR makes the following determination:			
☒ Goals	1.85% MBE	0.94% WBE	
☐ Subgoals	% African American	% Hispanic	
	% Asian/Native American	% WBE	
☐ Exempt from MBE/WBE Procurement Program		☐ No Goals	

City of Austin
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GOAL DETERMINATION REQUEST FORM

This determination is based upon the following:	
☐ Insufficient availability of M/WBEs ☐ Insufficient subcontracting opportunities ☒ Sufficient availability of M/WBEs ☐ Sole Source	☐ No availability of M/WBEs ☐ No subcontracting opportunities ☒ Sufficient subcontracting opportunities ☐ Other
If Other was selected, provide reasoning:	
MBE/WBE/DBE Availability	
There are sufficient M/WBE's availability.	
Subcontracting Opportunities Identified	
There is subcontracting opportunities identified.	

Counselor Name	
SMBR Staff	**Signature/ Date** AR 2/8/17
SMBR Director or Designee	**Date** 2/9/17
Returned to/ Date:	